IWMI
International Water Management Institute

Regional Strategic Roadmap East Africa

2024–2030

Driving Action • Propelling Change

Credits:

Photography
Front cover: Traditional village in the Sudd swamps of the White Nile near Bor, Bor County, Jonglei, South Sudan. (Hope Productions/Yann Arthus Bertrand/Getty Images)
Page v: Farmer in a field harvesting vegetables just outside of Brazzaville, Republic of Congo. (Vandelay Industries/Shutterstock)
Page 4: Mequanent Tena works as a data collector at the Qoga site located around the Bahir Dar area, Ethiopia. (Maheder Haileslassie/IWMI)

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Contents

Acronyms and Abbreviations

AI	Artificial Intelligence
FAO	Food and Agriculture Organization of the United Nations
IGAD	Intergovernmental Authority on Development
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
MELIA	Monitoring, Evaluation, Learning and Impact Assessment
NBI	Nile Basin Initiative
NGO	Nongovernmental Organization
R4D	Research for Development
SDG 6	Sustainable Development Goal 6 (Clean Water and Sanitation)
TFWS	Transformative Futures for Water Security
ToC	Theory of Change
UN	United Nations
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
WFP	World Food Programme

Foreword by the Country Representative

East Africa stands at the frontline of the global water crisis. Climate change, rapid economic and population growth, environmental degradation, and persistent fragility in both social and physical systems are reshaping livelihoods, ecosystems, and political economies across the region. As a resource embedded in human and environmental security, water now sits at the heart of regional food systems, human mobility, and development progress.

Against this backdrop and having been active in the region for over 20 years, the International Water Management Institute (IWMI) has a unique opportunity—and responsibility—to help countries and regional actors navigate complex transitions toward more water-secure, climate-resilient, and inclusive development pathways.

> **IWMI will increasingly focus on anchoring its science within national and regional decision systems through development finance, private sector engagement, and digital public goods.**

IWMI's East Africa Regional Office based in Addis Ababa has built a strong foundation over recent decades, co-leading scientific innovation with long-standing partners across the government, regional and basin organizations, research institutions, and development partners. An additional office has recently been opened in Nairobi to cater to our growing portfolio of work in the region.

This Regional Strategic Roadmap for 2024–2030 sets out how IWMI will scale its contribution at a critical time for the relationship between people and the environment in East Africa. It reflects ongoing engagement with national and regional stakeholders and aligns closely with IWMI's global Strategy 2024–2030 and the CGIAR research and innovation agenda. It has been developed drawing on feedback and recommendations from a series of consultations conducted as part of the dialogue under IWMI's Transformative Futures for Water Security initiative and various thematic dialogues and stakeholder consultations convened by IWMI's East Africa Regional Office in Addis Ababa.

While we anticipate that this Roadmap responds directly to the region's defining policy challenges, such as accelerating drought and flood risks, degradation of critical landscapes, weakening water governance, and challenges in managing shared waters, we also look forward to building alliances and coalitions with regional actors at all levels to help further shape our thinking. IWMI's East Africa Regional Office will leverage advances in technological practices, social and digital innovation,

and artificial intelligence to enhance decision-making in managing and developing the region's water and land systems.

More than anything else, IWMI's East Africa Regional Office aims, by 2030, to be an enabler of national and regional research excellence with our partners—strengthening water security analytics, delivering policy-relevant inputs, and creating solution pathways that turn evidence into action and science into positive transformations in food, land, and water systems. We will prioritize investments that strengthen ecosystem functions, improve water productivity and access, enhance resilience to climate shocks, promote greater equity, and, above all else, advance human security in the region.

This Strategic Roadmap emphasizes delivery, with a focus on implementation, scaling, and impact in partnership with others, and—most crucially—always supporting national ownership, gender equality, social inclusion, and climate justice. IWMI will increasingly focus on anchoring its science within national and regional decision systems through development finance, private sector engagement, and digital public goods. This will enable IWMI to move from informing decisions to shaping systems.

East Africa's future will be shaped by how effectively water is governed, allocated, and protected. Through this Roadmap, IWMI commits to working with partners to help ensure that water becomes a source of resilience and opportunity, rather than of risk and fragility.

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1. Context

Complex interactions between climate change, environmental degradation, demographic pressure, and social and economic fragility are shaping and reshaping significant policy challenges in East Africa. For East African governments, societies, and economies, water security is not simply reduceable to a sectoral concern; rather it is fast becoming a fully systemic crisis. As risks to hydrological systems grow, so too do risks to future food, energy, and public health security. Intensified climate variability is testing the effectiveness and exposing the inadequacies of existing water governance systems, and the ways in which countries, regional institutions, and local communities respond will be decisive for future development success and investment security.

The East Africa Regional Strategic Roadmap responds to this context by positioning water as a strategic entry point for climate-resilient, inclusive, and sustainable development across East Africa, with a particular focus on the most vulnerable communities, gender equality, social inclusion, and youth. As water insecurity in the region is a systemic development risk, it requires integrated responses that combine ecosystem restoration, productive water use (including irrigation), risk-informed drought and flood management, and strengthened institutions for governing shared resources—particularly where they are sensitive to overuse.

1.1 Water management in East Africa

East Africa is characterized by high spatial and temporal variability in rainfall and water availability. This is driven by the complex interplay of prevailing climate systems in the Indian and Atlantic Ocean systems, the effect of topography, and wider shifts in global climate patterns.

While some areas receive abundant seasonal rainfall—and under current projections may see increases—others, particularly arid and semi-arid lands, face chronic water insecurity. Groundwater resources, which underpin much of rural household water supply, remain poorly mapped and unevenly exploited, with growing evidence of substantial shifts in their buffering capacity.

In common with other parts of the world, agriculture remains the dominant water user, with more than 95% of agricultural production dependent on rainfall. While irrigated agriculture is expanding across the region (though unevenly by country), this is often without adequate consideration of sustainable yields from aquifers, long-term surface water availability, and sufficient governance arrangements in the face of other competing demands and impacts.

In parts of the region, including large water bodies such as Lake Victoria, Lake Tana, and the Central Rift Valley, water quality is deteriorating rapidly. Part of this decline is driven by rampant urbanization around water bodies, encroachment into wetlands, and growing intensification of farming hinterlands, especially for export agriculture. Pollution from untreated wastewater, agricultural runoff, and solid waste undermines the ecosystem services these water bodies provide, causing public health crises and depleting biodiversity and important livelihood systems. Weak monitoring and enforcement constrain effective responses and reflect wider governance challenges, including the impacts of corruption on public institutions.

Within this context, irrigation and other forms of managed water use represent a critical but underutilized lever for resilience, productivity, and climate adaptation. Small-scale and farmer-led irrigation, when supported by sound water availability assessments, appropriate governance arrangements, and energy-efficient technologies, can function as risk-management infrastructure rather than merely a production input. However, the expansion of irrigation without adequate consideration of sustainable abstraction limits, energy–water interactions, and institutional capacity risks exacerbating water stress.

Most East African countries have adopted some degree of Integrated Water Resources Management (IWRM) principles and established accompanying implementation institutions. However, capacity remains uneven and principles of IWRM are being overtaken by a broader focus on water and climate security, climate-smart agriculture, and energy security.

In many cases, policy incoherence and fragmentation across ministries, limited coordination between national and subnational levels, and persistent gaps between policy and practice remain the norm. Data limitations and weak decision-support systems further constrain strategic water planning and investment, although there are notable successes within the region. IWMI, in close collaboration with the Ministry of Irrigation and Lowlands (MILLs) of Ethiopia, leveraged earth observation data to develop options for improving water use efficiency and water productivity in one of the oldest irrigation schemes in Ethiopia. The analysis results and data generated were integrated into a dashboard, which was handed over to MILLs in 2025. While digital innovation, including earth observation data, offers promising options for filling the critical gaps in data needed for effective water management, limited awareness and capacity among African water management institutions impede the use of opportunities created by these advances.

1.2 Development challenges and systemic risks

Water insecurity in East Africa is closely intertwined with broader development challenges. Food insecurity remains widespread, exacerbated by climate shocks, conflict, and economic volatility. Recurrent droughts and floods—and secondary climate-induced impacts such as locust infestations and the spread of pests—have eroded livelihoods, reduced agricultural productivity, and, in some cases, increased reliance on humanitarian assistance. These shocks disproportionately affect smallholder farmers, pastoralists, women, youth, and displaced populations.

Environmental degradation compounds these risks, with deforestation, soil erosion, wetland loss, invasive species, and unsustainable land-use practices rapidly degrading critical catchments, particularly in densely populated highland areas and downstream floodplains. The reduction—and in some cases the complete loss—of ecosystem functions diminish natural buffering capacity against climate extremes, creating feedback loops that intensify drought and flood impacts. Natural capital stocks across the region are coming under unprecedented demand.

The region is also marked by high levels of social fragility and community displacement, including some of the most severe and protracted global humanitarian crises. Several East African countries rank among the most fragile globally, with long-standing conflicts arising from contested borders, political violence, and external intervention. As a result, there are substantial populations of refugees and internally displaced persons throughout the region. Water insecurity and environmental stress increasingly interact with these dynamics, contributing to conflict—often localized—and undermining social cohesion. Within this complex humanitarian landscape, global progress toward the targets of United Nations Sustainable Development Goal 6 (SDG 6) remains severely impeded.

“Recurrent droughts and floods—and secondary climate-induced impacts such as locust infestations and the spread of pests—have eroded livelihoods and reduced agricultural productivity.

Governance deficits and political instability further exacerbate these challenges. While policy frameworks are often well articulated on paper, implementation is constrained by weak accountability, limited resources at lower tiers of government, and poor integration of gender and social inclusion. Women and marginalized groups frequently encounter structural barriers, including sexual and gender-based violence, when accessing land and water in the region.

1.3 Transboundary waters and regional integration

All major river systems in East Africa are transboundary, including the Nile, the Lake Victoria basin, and the Genale-Dawa system. Parts of the region are also home to some of the world's most significant freshwater sources, including the Congo Basin and Lake Tanganyika. Shared groundwater systems are also increasingly recognized, though their extent and dynamics remain insufficiently understood. Transboundary water management therefore represents both a critical challenge and a strategic opportunity to enhance regional integration. Important efforts to promote cooperation have been underway since the late 1990s, and IWMI has built strong partnerships with the Nile Basin Initiative (NBI) under a memorandum of understanding since 2005.

Institutional arrangements for cooperation exist and continue to evolve even amidst complicated political dynamics. However, treaty-based governance remains limited, and transboundary water issues remain politically sensitive. Climate change, infrastructure development, and rising demand are constantly shifting the dynamics of cooperation, underscoring the need for neutral, evidence-based analysis and capacity development that can support dialogue and more informed decision-making.

At the same time, broader regional integration processes—through trade, energy interconnections, and infrastructure development—are reshaping water–energy–food linkages, some of which involve substantial external investment.

1.4 Emerging opportunities

Despite these challenges, important opportunities are emerging as regional and national institutions in East Africa increasingly recognize—following broader global trends—that climate impacts are primarily mediated through disruptions to water systems. This has elevated water security within climate adaptation, development planning, and investment agendas. As a result, Nationally Determined Contributions, National Adaptation Plans, and regional climate initiatives increasingly highlight water as a priority sector.

Advances in earth observation, digital technologies, including artificial intelligence (AI), and modelling offer new possibilities for improving water monitoring, forecasting, and decision support. Effective development of regional capacity to use these tools can help bridge persistent data gaps, support risk-based planning, and enable more timely and targeted responses to climate shocks. Above all, with the judicious development of regional skills and capacities, East Africa can establish more effective shared earth observation and monitoring systems to underpin regional efforts toward collective action and cooperation.

1.5 Implications for IWMI's regional engagement

This context calls for a response that moves strategically and systematically toward more programmatic interventions. IWMI's East Africa Regional Strategic Roadmap is therefore designed to address more systemic approaches that combine rigorous analytics and policy-relevant research with a commitment to co-innovation and partnership-driven delivery.

By working through partnerships that position water at the center of climate resilience, development, and regional cooperation agendas in East Africa, IWMI aims to support countries and regional institutions as they navigate uncertainty, manage escalating risks, and build more sustainable and productive pathways toward a water-secure and equitable future.

2. Achievements: Our Story of Impact

The work done by IWMI in East Africa has contributed to longer-term institutional shifts by embedding analytical tools, data systems, and learning processes within national and regional structures. Concentrated primarily in Ethiopia, Kenya and Uganda, the Regional Office has generated knowledge, partnerships, and policy-relevant tools with influence extending beyond individual projects and geographies.

2.1 Strengthening the regional evidence base on water security

A central contribution of IWMI in East Africa has been enhancing the understanding of surface water, groundwater, and climate dynamics in data-scarce environments. Through policy-relevant analytics on water availability, variability, and risk, IWMI has supported more strategic planning and investment in water, agriculture, and environmental management, working closely with national and local partners.

Our analyses have informed discussions on water allocation, agricultural water management, and climate adaptation. Recent examples include the development of the Amibara Irrigation Performance and Water Use Dashboard in Ethiopia and analytical inputs addressing water scarcity in the Nile Basin, contributing to basin-wide planning processes.

IWMI research on solar pump technologies demonstrated productivity gains for smallholder farmers and informed changes to national fiscal policy in Ethiopia, improving the affordability and scalability of pump imports.

Across this work, IWMI has combined biophysical analysis with institutional, inclusion, and governance insights, enabling more integrated decision-making and strengthening linkages between evidence and policy.

2.2 Advancing drought risk management and early action

IWMI has strengthened drought risk analysis across agriculture, water resources, and livelihoods, supporting a shift from reactive crisis response toward risk-based management and anticipatory action. By generating regularly updated, context-specific information on drought conditions and vulnerabilities, the Regional Office has contributed to improved preparedness and resilience building.

In collaboration with national and regional stakeholders, IWMI has analysed the spatial and temporal distribution of dry spells, the drivers of meteorological drought, the typology of drought events, and the critical timing of rainfall failure with implications for crop production and water management. In the Awash Basin, rainfall deficits from mid-July to early August (Hamle in the Ethiopian calendar) were identified as a key indicator of heightened drought and crop failure risk (Lakew et al. 2026)[1]. The analysis also highlighted significant spatial variability and strong linkages between drought occurrence and large-scale climate drivers, notably El Niño–Southern Oscillation (ENSO) and positive Indian Ocean Dipole (IOD) events.

These findings strengthen the basis for improved seasonal forecasting and risk management. Identifying critical rainfall windows enables farmers and water managers to adjust cropping decisions, plan adaptation measures, and prioritize water allocation more effectively.

2.3 Building flood resilience through data, systems, and action

IWMI has developed and tested community-centered approaches to flood early warning, including citizen science methods that link technical forecasting with local knowledge and communication systems. This has improved the usability and effectiveness of flood warnings in both rural and urban contexts. The team have also examined in detail the consequences of significant flood events in the Awash Valley and the Somali Region.

In Addis Ababa, IWMI has strengthened urban flood preparedness by working closely with city authorities and the Addis Ababa Adaptation Network. In the city's Akaki catchment, researchers co-developed an early warning system that integrates rainfall data, satellite observations, modelled streamflow, citizen-generated reports, and weather forecasts to deliver faster, more reliable alerts, addressing gaps in traditional top-down approaches. In working with local communities, citizen scientists have played a central role in two-way communication, ensuring timely dissemination of warnings. The Addis Ababa Flood Risk Management Dashboard[2] has improved data access and institutional coordination, while parallel support in Kampala is helping identify flood hotspots and inform infrastructure planning for more resilient urban water management.

In Ethiopia's Somali Region, IWMI has advanced flood resilience through evidence-based risk analysis, forecasting, early warning, and digital innovation to support vulnerable communities in Dolo Ado, Bokolmayo and surrounding areas. Working with the World Food Programme, Somali Regional authorities and local stakeholders, IWMI has mapped flood hazards, co-developed digital twin forecasting tools and strengthened anticipatory planning to improve preparedness and response to recurrent riverine floods that displace populations and damage infrastructure. These efforts close critical data gaps, inform early-action planning and build local capacity for resilient water and disaster management (see *Anticipating the flood: science, technology and survival in Ethiopia's Somali Region:* https://www.iwmi.org/news/anticipating-the-flood-science-technology-and-survival-in-ethiopias-somali-region/).

[1] Lakew, H.B.; Taye, M.T.; Seid, A.H. 2026. Multi-scale analysis of July (Hamle) rainfall failure as an indicator of drought and El Niño events in Ethiopia: A case study of Borkena Watershed, Awash Basin. *International Journal of Climatology* 46(3): e70227. https://doi.org/10.1002/joc.70227

[2] https://www.addisfire.gov.et/flood-dashboard

2.4 Advancing sustainable management of ecosystems and landscapes

IWMI has advanced more integrated approaches to land and water management through applied research and piloting. Work addressing sedimentation, watershed degradation, and wetland pressures has informed landscape-level planning and investment decisions.

Spatial mapping of Forest Landscape Restoration (FLR) and Nature-based Solutions (NbS) has guided targeted interventions in priority areas. Increasingly, gender and social inclusion analysis has been incorporated to better understand how power relations and access to resources shape environmental outcomes, supporting more grounded approaches to conservation and restoration. (see *Realizing the opportunities for sustainable landscape management in Central Rift Valley, Ethiopia*: https://hdl.handle.net/10568/140684).

Co-creation of knowledge has strengthened community engagement and local capacity for freshwater ecosystem management, while co-piloting low-cost interventions, such as gully rehabilitation, has improved farmers' knowledge and confidence to act.

2.5 Contributing to dialogue and capacity on shared waters

IWMI provides neutral, policy-relevant analysis to support technical capacity within regional and basin institutions. Engagement with the Nile Basin Initiative, the Lake Victoria Basin Commission, and platforms linked to the Intergovernmental Authority on Development (IGAD) has supported the generation and interpretation of data relevant to shared water systems, including the integration of irrigation management into basin-wide planning. Instead of pursuing mediation roles, IWMI has contributed by enabling informed dialogue through evidence, analysis, and capacity strengthening.

2.6 Building institutional capacity and learning

Across its portfolio, IWMI has strengthened institutional capacity in hydrological analysis, drought and flood risk assessment, water governance, and digital tools. Learning has been supported through collaborative research, technical training, and cross-country exchange.

Knowledge co-production with national partners has helped embed analytical approaches within institutions. Since 2003, the Regional Office has also provided financial support and supervision for PhD and MSc candidates from partner institutions, complemented by practice-oriented training linked to ongoing research and implementation.

2.7 Establishing foundations for broader regional engagement

While shaped by donor priorities and concentrated geographically, IWMI's engagement in East Africa has established long-standing relationships with national ministries, regional organizations, development banks, UN agencies, research institutions, and civil society actors. These partnerships provide a foundation for broader and more integrated regional engagement going forward.

3 Strategic Priorities

3.1 Strategic orientation and co-design

The strategic orientation of IWMI's East Africa Regional Office for the period up to 2030 reflects both the region's evolving water-related challenges and the lessons learned from IWMI's engagement over the past two decades, including the need for greater integration of research, policy engagement, innovation, and capacity support.

This Roadmap builds on the approved East Africa Strategy (2024–2030) and draws on extensive interaction with national government counterparts, regional institutions, development partners, research organizations, and practitioners across the region. It also draws on processes associated with the Transformative Futures for Water Security (TFWS) regional dialogue. IWMI will progressively move away from isolated pilots and technology-led interventions that lack clear pathways to institutional uptake or scaling. Instead, priority will be given to initiatives that are embedded within policy processes, aligned with national and regional priorities, and designed from the outset with scaling partners.

The target population comprises the countries and communities of East Africa and the Horn of Africa, including Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, and Uganda. Where relevant and necessary, the engagement will also extend to the eastern part of the Democratic Republic of Congo.

The East Africa Regional Office of IWMI has identified ***five strategic priorities for 2024–2030***. Together, they provide a coherent framework for linking research, innovation, policy engagement, and capacity development in support of more water-secure, inclusive, policy-coherent, and climate-resilient development pathways.

3.2 Our strategic priorities for 2024–2030

3.2.1 Sustaining ecosystem functions and productive landscapes

Environmental degradation in key landscapes across East Africa is undermining water security, agricultural productivity, ecosystem services, and human security. IWMI will strengthen research and innovation that improves understanding of land–water–ecosystem interactions and support the adoption of sustainable land and water management practices, with a strong focus on nature-based approaches. This work will build on and strengthen existing efforts and networks. Gender equality and social inclusion will be integral to this priority, alongside a strong focus on youth engagement, especially through citizen science approaches. IWMI will also examine the wider political economy environment, including how power relations, tenure systems, and access to resources shape human behavior, environmental outcomes, and collective action approaches—ensuring that new initiatives are more inclusive and equitable. Our focus will include degraded highland catchments, wetlands, and rangelands. Key stakeholders include smallholder farmers, pastoralist communities, and downstream water users in Ethiopia, Kenya, Uganda, and other priority landscapes across the region.

3.2.2 Advancing water security for people, food systems, and economies

Uneven water availability, declining water quality, weak governance, and limited decision-support capacity constrain the ability of countries to manage water as a strategic resource. These challenges also undermine efforts to improve the predictability of future flows, derisk water environments, and support long-term resource horizon planning. IWMI will strengthen its support for the development of a regional hub for water security analytics, innovation, and capacity development, bringing together key partners across the region. Partnership-building and support will be a central feature

of our approach. A central element of this priority will be strengthening water governance and policy coherence—vertically, horizontally, and normatively. Capacity development will be embedded throughout, ensuring that data, tools, and insights are accessible and usable by policymakers, practitioners, and development partners. Our focus will be on water-stressed rural, peri-urban, and urban areas; smallholder farmers and pastoralists; highly water-dependent economic sectors across East Africa, with regional and national application; and basin water demand 'hotspots' including data center development.

3.2.3 Managing drought risks

Drought has been a defining risk for East Africa since the 1970s, with severe and recurrent impacts on food security that have at times decimated livelihoods and ecosystems and contributed to political instability. IWMI will support a transition from reactive drought response toward proactive, risk-based drought management, including longer-term horizon scanning. This priority will strengthen drought monitoring and characterization through the integration of climate, hydrological, and socio-economic data, generating regularly updated, context-specific information on drought hazards, vulnerabilities, and impacts in collaboration with national, regional and international drought monitoring centers and agencies. IWMI will research and pilot practical options for drought risk mitigation and adaptation in partnership with governments, civil society organizations, and communities. Governance and institutional coordination will be central to this work, including approaches that support transboundary and regional drought management frameworks. IWMI will also support policy analysis and capacity development to strengthen drought preparedness frameworks, contingency planning, and early action mechanisms, in partnership with national and regional institutions, ensuring that gender, youth, and social inclusion considerations are embedded throughout these efforts. Our focus will be on arid and semi-arid lands and drought-prone districts in East Africa, with particular attention to pastoralist and rainfed farming communities.

3.2.4 Mitigating and managing flood risk

Flooding represents an increasing threat across East Africa, affecting riverine, floodplain, and urban environments and causing major loss of life through both immediate and secondary effects including landslides and mudflows. IWMI will advance research and innovation in flood risk management that link improved forecasting and early warning with preparedness, governance, and resilient development planning, including more effective engagement across government institutions and between government and society. In partnership with national and local institutions, IWMI will continue to explore and refine community-based early warning systems through citizen science approaches, while also contributing evidence to inform policy and investment decisions on floodplain management, urban drainage, and climate-resilient infrastructure. Institutional coordination across land- and forest-system governance will be addressed as core components of flood risk management, recognizing that technical solutions alone are insufficient without enabling policy and governance frameworks that take a landscape approach from mountains to mangroves. Our focus will be on flood-prone river basins and urban areas; vulnerable rural and urban communities; and local authorities and national agencies in Uganda, Kenya, and other flood-exposed contexts.

3.2.5 Strengthening cooperation over shared waters

The dynamics and uncertainties of transboundary waters make their governance politically fraught and institutionally sensitive. Nevertheless, it is an arena where regional actors at all levels have considerable experience in experimenting with institutional, project, and programmatic designs, with several notable successes to build upon. IWMI will help build on existing experience of cooperation by providing neutral, policy-relevant evidence and strengthening technical and analytical capacity within regional and basin institutions and, where appropriate, at lower levels as well. IWMI's role will be to enable cooperation through co-developing evidence, learning, and capacity with regional and national partners, including support for water science skills and institutional coordination. Our focus will be the Nile Basin, Lake Victoria Basin, the Genale-Dawa Basin, the Omo-Gibe Basin, as well as other shared water systems; regional and basin institutions; national agencies engaged in transboundary water management; and regional civil society networks.

4 Implementation Roadmap (2024–2030)

The implementation of the East Africa Regional Strategic Roadmap will be guided by IWMI's Research-for-Development (R4D) approach. Rooted in the principle of co-development, this approach links high-quality research and innovation with policy engagement, capacity development, piloting, and scaling through strategic partnerships. Delivery will be adaptive, co-designed, and context-sensitive, recognizing the political, climatic, and institutional diversity of East Africa, the sensitivity of many development environments, and the importance of maintaining a clear focus on outcomes and impact.

Implementation will prioritize translation of evidence into action, ensuring that IWMI's analytical strengths directly inform decision-making, investment, and institutional reform. The Roadmap is explicitly aligned with IWMI's organizational Theory of Change and Monitoring, Evaluation, Learning and Impact Assessment (MELIA) framework, with intermediate outcomes defined at regional and national levels.

Implementation across all strategic priorities will be guided by five core principles:

1. **Co-design and national (and where appropriate, local) ownership**

   Research agendas, analytical products, and pilot interventions will be co-designed with national, regional (and local) partners to ensure relevance, uptake, and sustainability.

2. **From analytics to decisions**

   IWMI will prioritize the co-production of decision-relevant data, tools, and insights that can be directly used by policymakers, basin authorities, utilities, development partners, and civil society organizations.

3. **Scaling through partnerships**

   IWMI will not seek to deliver solutions at scale directly. Instead, it will partner with and support governments, development banks, UN agencies, the private sector, and nongovernmental organizations (NGOs) in scaling proven solutions and approaches, with a strong emphasis on effective delivery to users and robust feedback mechanisms.

4. **Integration of a strong gender, inclusion, and youth focus**

   Gender equality, social inclusion, and youth considerations—including future mobility affected by climate, work, and policy considerations—will be embedded across all activities, informed by gender- and socially-disaggregated data where possible.

5. **Adaptive learning, risk management, and experimentation**

   Implementation will be phased and iterative, allowing learning from early pilots to inform later scaling, while managing political, reputational, and delivery risks. Risk aversion will be balanced by a confidence to innovate, fail, and innovate again, if necessary. We will avoid path-dependency and overly conservative approaches, instead assisting partners in the region identify solutions to the immense development challenges in East Africa.

Implementation will be structured into three overlapping phases, with an additional phase firmly rooted in the future:

- **Phase 1 (2024–2026): Evidence consolidation and co-design**

  Strengthening data, diagnostics, partnerships, and co-designed research agendas. Early policy engagement.

- **Phase 2 (2027–2029): Piloting, policy engagement, and capacity development**

  Testing and refining solutions, supporting policy processes with partners, and co-building institutional capacity.

- **Phase 3 (2029–2030): Scaling support and consolidation**

  Supporting uptake and scaling by partners, consolidating learning, and informing future investment pathways.

- **Phase 4 (2030-): Building bridges into the future**

  Supporting youth in taking the initiative and responsibility for future research-into-policy development, practical experimentation, and science learning across the region.

Table 1 presents the core implementation roadmap, linking strategic priorities to intermediate outcomes, key activities, geographies, partners, and delivery timelines, in line with IWMI's organizational Theory of Change.

Table 1. Implementation Roadmap: East Africa, 2024–2030

Expected outcomes (intermediate)	Key activities/ interventions	Countries/ geographic areas	Partners and beneficiaries	Delivery model and timeline
Priority 1: Sustaining ecosystem functions and productive landscapes				
Improved ecosystem functions and services in priority landscapes	Landscape and watershed diagnostics; sediment and degradation monitoring; ecosystem service assessments; gender and inclusion assessments	Ethiopia, Kenya, Uganda (priority catchments)	Ministries (water, environment, agriculture, women), basin authorities, NGOs, research institutions, local communities	Diagnostics and co-design (2024–26); pilots (2027–28); scaling support (2028–30)
Adoption of sustainable land–water management practices	Piloting integrated soil and water conservation; nature-based solutions; development of viable business and financing models; socio-economic impacts and inclusive co-management practices	Degraded highlands, wetlands, rangelands	Governments, NGOs, community organizations, private actors	Pilots (2027–29); partner-led scale-up (2029–30)
Strengthened governance for landscape management	Policy coherence analysis; support for land-use planning; guidance on buffer zones and restoration; assessments of gender, inclusion, and political economy	National and subnational	National agencies, local authorities, regional institutions	Continuous policy engagement (2026–30)
Priority 2: Advancing water security for people, food systems, and economies				
Improved water security decision-making	Water accounting; surface and groundwater assessments; water quality analysis; decision-support tools; social impact assessment	Regional and national	Governments, utilities, World Bank, African Development Bank, UN agencies, academia	Continuous analytics and capacity development (2024–30)
Increased water productivity in agriculture	Research on small-scale irrigation; water use efficiency; integration of water and energy solutions; local-level political economy and social analysis	Ethiopia, Kenya, Uganda	Ministries, farmer organizations, NGOs, private sector, academia	Research and pilots (2026–28); scaling support (2028–30)

Table 1 *(continued)*

Expected outcomes (intermediate)	Key activities/ interventions	Countries/ geographic areas	Partners and beneficiaries	Delivery model and timeline
Strengthened water governance and policy coherence	Policy-relevant research; economic and regulatory instruments; inter-sectoral coordination support; support to socially inclusive policy processes and outcomes; political economy of policy decision-making and implementation	Regional and national	National governments, regional bodies, development partners, NGOs, academia	Policy engagement (2026–30)
Priority 3: Adapting to drought risk				
Enhanced drought preparedness and early action	Drought monitoring and characterization; integration of climate and hydrological data; early warning–early action linkages; institutional, social and gender analysis	Ethiopia, Kenya, Somalia, Sudan	IGAD, meteorological agencies, disaster authorities, NGOs	System strengthening (2024–27); consolidation (2028–30)
Increased resilience of drought-prone livelihoods	Small-scale water solutions; improved storage and efficiency; livelihood resilience research; gender and inclusion analysis	Arid and semi-arid lands and drought-prone districts	Local governments, NGOs, community groups	Pilots (2027–29); partner-led scaling (2029–30)
Improved drought policy and governance	Policy coherence analysis; contingency planning support; capacity development; institutional and governance analysis	National and subnational	Governments, regional bodies	Ongoing engagement (2026–30)
Priority 4: Mitigating and managing flood risk				
Improved flood forecasting and preparedness	Flood modelling; integration of remote sensing; improved warning lead times; gender and institutional analysis	Uganda, Kenya	Hydrometeorological agencies, disaster authorities	Research and system enhancement (2024–27)
Reduced flood impacts on vulnerable communities	Citizen science support for community-based early warning systems; preparedness planning; gender and inclusion analysis	Flood-prone basins and urban areas	Local authorities, NGOs, communities	Pilots (2027–28); scaling support (2028–30)
More resilient infrastructure and land use	Research on climate-proofing infrastructure; floodplain management guidance; gender and social inclusion analysis	National and subnational	Ministries, municipalities, development partners	Policy support (2026–30)
Improved flood policy and governance	Policy coherence analysis; contingency planning support; capacity development; political economy and governance analysis	National and subnational	Governments, regional bodies	Ongoing engagement (2026-30)

Table 1 *(continued)*

Expected outcomes (intermediate)	Key activities/ interventions	Countries/ geographic areas	Partners and beneficiaries	Delivery model and timeline
Priority 5: Strengthening cooperation over shared waters				
Improved evidence base for transboundary cooperation	Data generation; scenario analysis; shared water assessments	Nile Basin; Lake Victoria Basin	Nile Basin Initiative, Lake Victoria Basin Commission, national agencies	Continuous analytical support (2025–30)
Strengthened institutional and technical capacity	Capacity development in analysis and water diplomacy	Regional institutions	Basin organizations, governments	Training and learning (2026–29)
More informed dialogue on shared waters	Policy-relevant knowledge products; policy coherence analysis; neutral convening support; gender and inclusion analysis; governance and political economy studies	Regional	Regional bodies, development partners	Ongoing engagement (2026–30)

Implementation will explicitly manage key risks, including the political sensitivities surrounding shared waters, uneven institutional capacity, and uncertainty in funding flows, especially given current uncertainties among major development actors in the region. IWMI will maintain focus on areas where it has significant advantage, while working through partners for delivery and scaling, and consistently seeking to share rather than retain this advantage with regional and national institutions.

Regular reflection and learning processes will ensure coherence across strategic priorities and alignment with IWMI's organizational goals. Lessons learned during implementation will inform adjustments to activities and contribute to IWMI's global learning agenda.

5 Partners & Funders

Implementing the East Africa Regional Strategic Roadmap requires strong, sustained partnerships across national, regional, and global levels. IWMI's East Africa Regional Office works through a partnership model that recognizes its role as a research-for-development institution: Always 'co'-generating evidence, testing solutions, sharing capacity, and supporting partners to scale impact, and in doing so always seeking to develop skills and capacities within and between our regional and national partnerships. Partnerships are therefore central to implementation, learning, and long-term sustainability—and also to creating our eventual 'exit ramp' from the region.

IWMI's partnerships in East Africa fall into three complementary categories:

- **Demand partners,** who seek IWMI's analytical and research capabilities to inform policy, planning, and investment decisions.
- **Innovation partners,** who collaborate with IWMI on research design, data generation, and solution development.
- **Scaling partners,** who have the mandate, resources, and reach to take proven approaches to scale.

This approach enables IWMI to focus on rigorous science, policy-relevant analysis, and innovation, while supporting delivery and impact through partner-led pathways.

At the national level, IWMI works closely with ministries and agencies responsible for water resources, agriculture, environment, energy, and climate adaptation. These partnerships support co-design of research agendas, application of analytical tools, integration of evidence into national policies, strategies, and investment plans, and policy coherence building. Engagement with subnational authorities and local institutions is particularly important in the contexts of decentralization, climate risk management, and landscape-level interventions, including catchment-based planning.

National research institutions, universities, and technical agencies are key innovation partners, contributing local knowledge, joint research, and capacity development. Collaboration with civil society organizations and community-based actors supports contextualization, inclusion, and uptake of solutions, particularly among smallholder farmers, pastoralists, and vulnerable groups.

Regional organizations play a critical role in addressing shared challenges and supporting cooperation across borders. IWMI's East Africa Regional Office engages with institutions such as the Intergovernmental Authority on Development (IGAD), the Nile Basin Initiative (NBI), the Lake Victoria Basin Commission, and the East African Community (EAC) to support evidence-based dialogue, technical analysis, and capacity strengthening around shared waters, drought and flood risk, and climate adaptation.

These partnerships enable IWMI to contribute neutral, policy-relevant knowledge to critical development processes, while reinforcing regional ownership and institutional learning.

IWMI's work in East Africa is supported by a diverse group of development partners and funders, including multilateral development banks, bilateral agencies, foundations, and the CGIAR system. Key partners include institutions such as the World Bank, the African Development Bank, bilateral development agencies, and philanthropic foundations that prioritize climate resilience, food security, water governance, and humanitarian–development–peace linkages.

United Nations agencies—including the Food and Agriculture Organization (FAO), the World Food Programme (WFP), the United Nations Environment Programme (UNEP), and the United Nations High Commissioner for Refugees (UNHCR)—are important partners in contexts where water security intersects with food systems, ecosystems, displacement, and humanitarian response. These collaborations support alignment between research, operational programming, and policy engagement.

Private sector actors are increasingly relevant partners, particularly in areas such as digital services, renewable energy, agricultural innovation, and water service delivery. IWMI engages selectively with private and social enterprises to test and assess innovative models that improve water productivity, access, and resilience, while maintaining a strong focus on public value and equity.

IWMI
International Water Management Institute

CGIAR RESEARCH CENTER

The **International Water Management Institute** (IWMI) is an international, research-for-development organization that works with governments, civil society and the private sector to solve water problems in developing countries and scale up solutions. Through partnership, IWMI combines research on the sustainable use of water and land resources, knowledge services and products with capacity strengthening, dialogue and policy analysis to support implementation of water management solutions for agriculture, ecosystems, climate change and inclusive economic growth. Headquartered in Colombo, Sri Lanka, IWMI is a CGIAR Research Center with offices in 17 countries and a global network of scientists operating in more than 55 countries.

Vision
A water-secure world

Mission
Research and innovation in partnerships for collective action that advance the transformation of water systems for sustainable, just and climate resilient development.

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