

# Lake Victoria fisheries

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**F**ish is a global commodity and a binding factor for the three East African partner states of Kenya, Tanzania and Uganda which share Lake Victoria. Lake Victoria covers approximately 68,800km<sup>2</sup> and is the largest freshwater lake in Africa and second only to Lake Superior, in the world. The lake lies across the equator and has a shoreline of 3,450km with a catchment area of 194,200km<sup>2</sup> extending into Rwanda and Burundi. Lake Victoria's basin supports a population of 35 million people who derive their livelihood directly or indirectly from the resources within the basin.

Lake Victoria's total fish production is estimated at one million tonnes, worth US\$650 million of which US\$340 million is generated at the shore and US\$310 million is generated from fish exports estimated at 86,000 tonnes (LVFO, 2007). The Lake Victoria fisheries sub-sector provides employment to over 3 million people of whom about 200,000 are fishermen. Lake Victoria fisheries contributes much to GDP: 0.5 per cent in Kenya, 2.5 per cent in Tanzania and 2.6 per cent in Uganda, in terms of food, income, employment and foreign exchange earnings. Per capita fish consumption is 5kg in Kenya, 8kg in Tanzania and 10kg in Uganda. The three East African partner states have long recognised the economic importance of fisheries and the need to jointly manage the resources for socio-economic growth for the present and future generations of the riparian communities.

## **Collaboration on Fisheries**

The three partner states' cooperation on the fishing matters of Lake Victoria dates back to 1928, when an authority was established to collect fishing statistics. Collaboration was strengthened with the formation of the East African Freshwater Fisheries Organisation (EAFFRO) in 1947 and later with the formation of the East African Community (EAC) in 1967. With the collapse of the EAC in 1977, the partner states lost a platform to address common fishing concerns. Under the auspices of the Food and Agriculture Organisation (FAO) of the United Nations and the Committee for Inland Fisheries of Africa (CIFA), the Partner States established a sub-committee for Lake Victoria to collaborate on fisheries matters. On 30th June 1994 the Partner States, signed a Convention in Kisumu, Kenya for the establishment of the Lake Victoria Fisheries Organisation (LVFO). The LVFO is an

intergovernmental technical organisation responsible for the joint management of Lake Victoria fisheries resources. With the rebirth of the EAC in 1999, the LVFO became a specialised institution of the East African Community under Article 9 of the EAC Treaty. The mandate of the LVFO is reiterated in Article 8 of the Protocol for Sustainable Development of Lake Victoria Basin, 2003, which is the basis for the establishment of Lake Victoria Basin Commission (LVBC). The LVFO has promoted the fisheries of Lake Victoria as a viable economic resource for food, income, investment and trade.

## **Lake Victoria Fisheries Organisation**

The mandate of the LVFO is to foster cooperation among the partner states; harmonise national measures, develop and adopt conservation and management measures for the sustainable utilisation of the living resources of Lake Victoria for optimal socio-economic growth and development. The major functions of the LVFO are to: (i) Promote the proper management and optimum utilisation of fisheries and other resources of the lake; (ii) Enhance the capacity of existing fisheries institutions; (iii) Provide a forum for discussion of the impacts of initiatives on the lake; (iv) Provide for the conduct of research on the living resources of the lake and its environment; (v) Coordinate and undertake training and extension in all aspects of fisheries; (vi) Consider and advise on the impact of introductions of non-indigenous organisms into Lake Victoria; (vii) Serve as a clearinghouse and a data bank for information on the fisheries of the lake; and promote the dissemination of information. The LVFO commenced its operations on 1st July 1997.

The LVFO is governed by the Council of Ministers responsible for fisheries in the Partner States assisted by the Policy Steering Committee composed of the Permanent Secretaries of the Ministries responsible for fisheries, the Executive Committee composed of the Directors of Fisheries Management and Research, the Fisheries Management Committee composed of Heads of Fisheries Management institutions, the Scientific Committee composed of Heads of Fisheries Research Institutions, the National committees for Lake Victoria and the Beach Management Units. The Organisation is served by a Secretariat with its headquarters in Jinja, Uganda.

### **LVFO Achievements 1997-2009**

The LVFO has made notable achievements despite the pressing challenges that have continued to besiege the fisheries and the dependent fishing communities of Lake Victoria, as the sector transformed from subsistence to commercialisation and industrialisation.

### **Effective coordination and harmonisation of fisheries management and research on Lake Victoria**

The LVFO has established functional structures from the regional to the grassroots level, which have fostered partner states' unification, coordination and harmonisation on fisheries matters. Under the LVFO umbrella the partner states have been able to strengthen collaboration with fishing communities, local governments, civil society and the international community to secure support for implementation of the strategic vision for Lake Victoria.

### **Development of a Strategic Vision for Lake Victoria (1999-2015)**

The Partner States, through Regional Stakeholders forums, formulated a 15 year Strategic Vision for Lake Victoria (1999-2015) as a guiding instrument, reference point and main operational document for the management of the fisheries of Lake Victoria. To operationalise the strategic vision, the LVFO formulated a Fisheries Management Plan for Lake

Victoria to facilitate the wise use of the fisheries' resources, and sustainable economic growth and development in the lake basin.

### **Fisheries Management Plan for Lake Victoria**

The Partner States are implementing a Fisheries Management Plan (FMP) for Lake Victoria to ensure proper management and optimum utilisation of the fisheries and other resources of the lake. The first phase was implemented with support of the European Union under the Implementation of a Fisheries Management Plan (IFMP) for Lake Victoria Project. The IFMP supported the establishment of co-management on Lake Victoria, the conducting of regular resource monitoring, law enforcement, improvement of fish landing beaches and community social infrastructures, and building of the LVFO Headquarters. The five year plan has been updated to FMP II to include species-specific management plans for Nile perch, Tilapia and sardine-like Dagaa/Omena/Mukene. The plan also entails new programmes on aquaculture and post-harvest fisheries. The FMP II requires technical and financial support to be implemented.

### **Establishment of Fisheries Co-management on Lake Victoria**

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civil society, private sector, local authorities and riparian communities. The cornerstone of this co-management is built on the empowerment of the fishing communities as primary stakeholders in the management of the fishing resources. The fishing communities have been mobilised into 1069 Beach Management Units (BMUs), with legal powers to work in partnership with government to manage the fishing resources within their respective areas of jurisdiction. The BMU Committees are elected through democratic process from the village to the national level. The BMU networks have been established to strengthen community participation and representation in decision making and policy formulation at all levels. The BMUs are playing a central role in enforcement, management of tenders for revenue collection, data collection, and improvement in fish handling, hygiene and sanitation at the beaches, and community mobilisation, sensitisation and lobbying for improved service delivery. The BMUs are now recognised as the main entry point for development interventions designated for communities. The system is being understudied by other interested fisheries organisations and communities and is being replicated in other small-scale fisheries including the marine coastal communities of the Indian Ocean.

### **Addressing Crossborder fishing conflicts on Lake Victoria**

The LVFO has been instrumental in conflict resolution and transboundary management on Lake Victoria. The major constraints and causes of conflict on the lake are the invisible boundaries, mobile fish stocks and different regulatory systems of the partner states. During the height of the fishing conflicts on the lake between 2000-02, the LVFO provided fora for the partner states to discuss, develop and agree on a regional strategy on Crossborder fishing and fish trade on Lake Victoria. Implementing the strategy controlled the conflicts and reduced incidences of insecurity and piracy on the lake. The partner states are in the process of harmonising the fisheries regulations and the LVFO mechanism is used to institute new measures to deal with emerging issues.

### **Implementing the Code of Conduct for Responsible Fisheries.**

The partner states are signatory to the FAO Code of Conduct for Responsible Fisheries and have gone ahead to domesticate two of its International Plans of Actions into Regional Plans of Actions (RPOAs).

(i) In 2002, the LVFO adopted the Regional Plan of Action to prevent, deter and eliminate Illegal, Unreported and Unregulated (RPOA-IUU) fishing on Lake Victoria.

(ii) In 2006, the LVFO adopted the Regional Plan of Action for the management of Fishing Capacity

(RPOA-Capacity) on Lake Victoria.

The partner states are implementing both RPOAs, which are instrumental in the removal of illegalities and controlling of fishing efforts on the Lake. The use of destructive fishing gears, catching, processing and trading in undersized/ immature fish and increase in fishing effort are cited as major causes of the decline in the Nile perch fishery.

### **Conducting Joint Resource Monitoring**

The LVFO coordinates joint fisheries research programmes to generate regional synthesised data and information on Lake Victoria used in decision making for sustainable management of the resource. Regular fisheries monitoring of the fish stocks is conducted through various lakewide surveys: frame, catch assessment, hydro-acoustics, trawl and socio-economics surveys. All surveys use harmonised standard operating procedures to ensure uniformity of methodologies and comparability of research findings. As a result of these surveys scientists are able to depict the status of the stocks and to establish clearly that the Nile perch stocks have declined. Stock assessment has been conducted to bring together all the resource monitoring information generated over the years to provide management guidance. The outcome of these processes and recommendations by the scientists have guided the LVFO Council of Ministers to come up with new management measures to address the decline of the Nile perch fisheries and to eradicate illegal trade in undersized fish.

### **Harmonisation of Fisheries Policies, Regulations and Standards**

LVFO has contributed to major policies, legal, and institutional development of the Partner States. The LVFO supported Kenya to develop a fisheries policy and master plan as well as a service delivery charter. Uganda has a fisheries bill and was supported to prepare a business plan. Tanzania will also be supported to update its fisheries policy. The LVFO supported partner states to empower and legalise the BMUs and is supporting the development of BMU fisheries bylaws. The partner states have harmonised registration and licensing of fishers and fishing inputs (boats, engines and gears) for identification, collection of fisheries statistics, management of fishing capacity and eradication of illegalities. Guidelines were developed and harmonised for use by the partner states in conducting joint fisheries patrols and law enforcement. The LVFO contributed to the development of harmonised EAC standards on fish quality assurance and safety for freshwater and marine fisheries.

### **Promotion of International Fish Trade**

The LVFO brought together the partner states to look at the market as a region, which enabled them to

address the intermittent bans imposed on fish exports, improve on fish handling, hygiene and sanitation at the fish landing beaches and processing factories. The capacity of the competent authorities and industrial fish processors was strengthened to meet the required international fish quality and assurance standards to sustain the fish export market. The current focus of the organisation is to rejuvenate the Nile perch stocks and protect the Tilapia and Dagaa fisheries. The partner states are implementing the 'Zero tolerance' measure to eradicate illegal gears and curb the capture and trading in immature fish to sustain production, domestic consumption and regional and international trade.

### **Regional Strategy on HIV/AIDS in fishing communities of Lake Victoria**

The HIV and AIDS prevalence (10-40 per cent) among the fishing communities is way above the national averages of (6-7 per cent) in East Africa. With the support of development partners, LVFO has developed a strategy to address HIV and AIDS in the fishing communities. The Organisation is working with partners to lobby for more support and interventions to improve service delivery to the fishing communities. Under the EAC/ AMREF Lake Victoria Basin Partnership, the LVFO has commissioned a study on HIV prevalence, knowledge, attitudes and practices in the fishing communities to provide evidence-based information to guide future interventions. The LVFO has also formed a network of organisations working in fishing communities to address HIV and AIDS.

### **Aquaculture Research and Development**

The LVFO, with support from FAO, has initiated the development of national and regional aquaculture strategies. The regional aquaculture strategy and investment plan aims at attracting investment and commercialisation in aquaculture, providing alternative livelihood to fishers, alleviating pressure from capture fisheries and meeting the growing demand for fish and fishery products.

### **Challenges on Lake Victoria**

Research findings of recent years show the downward trend of the Nile perch fish stocks, catches and fish exports, while the lake has continued to attract more people in fishing and other related activities. The major challenges include:

- (i) How to reverse the decline of the Nile perch stocks and sustain the export market
- (ii) Use of destructive and illegal fishing gear and methods, capture of immature fish, and increasing fishing effort on all fish stocks
- (iii) Sustainable funding of fisheries programmes and institutions

- (iv) Vulnerability and marginalisation of fishing communities
- (v) Improvement of service delivery and infrastructure for the fishing communities
- (vi) Sustaining BMU networks and co-management structures
- (vii) Environmental changes such as global warming, environmental degradation, fluctuating water levels and others that may affect fish breeding and growth.

### **Forging ahead**

The challenges are of great concern to all stakeholders, particularly with regard to resource use and conservation, livelihood, food security, fish export market, economic growth and development of the Lake Victoria basin. The LVFO is optimistic that solutions can be sought to address the challenges because of the existing political will and commitment. However, there is need for more concerted efforts and dedication from all the EAC partner states, stakeholders and development partners towards sustainable and equitable funding of fisheries programmes and institutions.

At the beginning of the industrialisation of the fishery sector in the 1990s, the sector faced intermittent bans imposed on fish export by the European Union. The LVFO brought together the partner states to look at the market as a region, which enabled them to put in place facilities to meet the required international market standards by 2001. The major challenge to the partner states is to how to sustain and safeguard their export market position in view of increasing demand in the region and international markets and increasing competition from low cost production fishery systems. The decline of the Nile perch fish stocks complicates the situation, particularly for the fishing communities and export industry, calling for mitigation measures to reverse the downward trend. The Nile perch is the major backbone of Lake Victoria fisheries in terms of food, employment, incomes, investment, tax revenue and foreign exchange earnings. The partner states acknowledge the problem, and through the LVFO have instituted measures directed at the recovery of the fisheries, which include implementing a zero tolerance approach to illegal fishing and trade in undersized fish; upgrading the minimum mesh size gillnet from 5 inches to 7 inches, limiting the hook sizes for Nile perch and limiting minimum mesh size gillnet for Dagaa to 2km away from the shoreline.

Much more support is needed for the recovery of the Nile perch. Other fish stocks such as the Tilapia and Dagaa constitute a major portion of the animal protein intake to the local consumers in the domestic market. There is need to monitor closely these and other native species and take timely corrective action to ensure sustainability. **F**

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