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## COMMITTEE FOR INLAND FISHERIES AND AQUACULTURE OF AFRICA

### Eighteenth Session

**Bamako, Mali, 26-28 November 2019**

#### **Roles of lake and river basin organizations in inland fisheries management**

### SUMMARY

This session document provides a summary of information on the role of lake or river organizations (RBOs) concerning the sustainable utilization and management of inland fisheries in Africa. For purposes of this meeting, the document focuses on organizations responsible for, inland fisheries and aquaculture.

This document is based on the “Summary information on the role of international fishery organizations or arrangements and other bodies concerned with the conservation and management of living aquatic resources” prepared by G. Lugten in 2010<sup>1</sup> and the institutional assessment of Regional Fisheries Bodies and Water Basin Commissions in South-East Africa AU-IBAR, 2015<sup>2</sup>.

This document, irrespective of sector, summarizes as appropriate the various tasks lake or river basin organizations focus on into three core roles namely: monitoring, investigating, coordinating and regulating; planning and financing and developing and managing. This information is described using relevant lake or river bodies in the African region where possible. The critical considerations include integration or ecosystem approach, flexibility, work at all levels and collaboration.

The document uses case studies to explain the critical roles of lake or river basin organizations in ensuring cooperation in the sustainable utilization and management of inland fisheries and aquaculture. The document further introduces highlights the challenges and possible remedies on how the lake or basin organization can contribute to sustainable utilization of inland fisheries and aquaculture.

**The Committee is requested to** reflect on the key roles played by the lake or river basin organizations and suggest how best can reposition themselves to address barriers that the that hinder inland fisheries and aquaculture and facilitate socioeconomic transformation in the sub-Saharan Africa.

<sup>1</sup> Lugten, G. The role of international fishery organizations and other bodies in the conservation and management of living aquatic resources. *FAO Fisheries and aquaculture Circular*. No. 1054. Rome, FAO. 123p.

<sup>2</sup> AU-IBAR 2015. Institutional Assessment of Regional Fisheries Bodies and Water Basin Commissions in South-East Africa. AU-IBAR Reports

## Introduction

1. The Food and Agriculture Organization of the United Nations (FAO) defines inland waters as lakes, rivers, streams, canals, reservoirs, and other land-locked waters (FAO 2014c). While inland is generally synonymous with freshwater, inland waters do include land-locked saline water bodies such as the Caspian Sea (FAO 2014a). Inland waters comprise approximately 0.01% of the total volume of water on earth (Stiassny 1996).
2. Inland fishes reside in these waters and comprise approximately 40% of all fish species and 20% of all vertebrate species (Helfman et al. 2009). It has also been suggested that “global-reported inland fish catches may have been underreported by 39 per cent in 2008 “(Funge-Smith & Bennett, 2019)”
3. Inland fisheries are crucial sources of animal protein and micronutrients, such as omega-3 fatty acids, calcium, vitamin A, iron and zinc, particularly in developing countries and Low Income Food Deficit countries; they thus play an important role in promoting global food security (Craviari et al. 2008; Youn et al. 2014). The sector provides harvest and post-harvest employment to approximately between 16.8 and 20.7 million people around the world, of which more than 50% are women in Africa alone, inland fisheries supports livelihoods of 2.7 million fishers and 2.1 million people in the postharvest sector (Funge-Smith 2018).
4. Unlike marine fisheries, the greatest risks to the governability of inland fisheries originate from outside the fishery sector (FAO 1997; Cowx 2002; Cowx et al. 2010; Beard et al. 2011). The major potential conflicts come from other sectors societal needs (drinking water, irrigation for agriculture, hydropower generation, navigation, industrial and domestic sources etc. and drain directly through feeder streams or rivers all of which rely on the waterbodies and aquatic resources in which inland fisheries are based. Associated impacts, including habitat degradation, water pollution, and flow modification, serve as major constraints to the steering of inland fisheries, and to a greater degree, to the protection of aquatic biodiversity (Cowx, 2002).
5. Conflicts with agriculture are similar to those for inland fisheries for example competition with agriculture for land, water quantity and quality are critical factors besides that for inputs such as fertilizer and supplementary feed. On the other hand inland fisheries in form of aquaculture may have downstream impacts on other sectors where intensive culture may generate polluted effluent and when aquaculture generates high returns, may cause further land loss to fish farming at the expense of the rice production.
6. Effective lake or river management therefore calls for a whole basin, ecosystem approach that encompasses not only the lake or river itself but also the land uses and activities in the surrounding watershed as well as the coordinated management of lakes and rivers in the basin that calls for establishment of responsible institutions<sup>1</sup> commonly referred to as the lake or river basin organisations.

## Lake or river basin management institutions

7. Within a river basin, fishery management activity is conducted with various levels of formality ranging from traditional organizations such as village committees or fisheries groups; nongovernmental organizations, private sector organizations, through to government sanctioned organizations such as departments of fisheries and environmental protection agencies. There are 17 transboundary river basin organizations in Africa and a further 03 inter-governmental Lake organizations (Lake Victoria Fisheries Organisations (LVFO); Lake Tanganyika Authority (LTA) and Lake Chad Basin Commission (LCBC))<sup>3</sup>. Besides these organizations, there are also inter-governmental regional fishery bodies that are competent in inland waters, but which do not have a specific waters bodies defined within their areas of competence (list all of these arrangements: Committee for Inland Fisheries and Aquaculture of Africa (CIFAA), Regional Commission of Fisheries of Gulf of Guinea (COREP); Fishery Committee for the West Central Gulf of Guinea (FCWC) and Sub-regional Fisheries Commission (SRFC))<sup>4</sup>.
8. Lake or river basin organizations are apex organizations and are typically inter-governmental arrangements. They have diverse mandates and undertake a range of functions, but tend to focus on only three categories depending on the purpose for which they were created and the arrangements for management. These three core roles include: monitoring, investigating, coordinating and regulating; Planning and financing, and Developing and managing<sup>5</sup>.
9. The river basin authorities in Africa are principally concerned with the management of water resources and none is related to fisheries.
10. In these roles, lake or basin organizations action is taken through national counterpart agencies, although in some capacities the organisation may have a direct role. For example, LVFO recently implemented harmonization activities that incorporate international instruments such as the EAC Fisheries and Aquaculture Policy 2018; species specific licencing for Lake Victoria 2019, fisheries and aquaculture border inspection and cage aquaculture 2018. The others harmonised guidelines includes the establishment and management of breeding and nursery areas 2019; fish traders in fisheries and aquaculture products 2019; and LTA developed a plan of Action in line with the AU-IBAR fisheries management framework and the Code of Conduct for Responsible Fisheries. An important issue to consider is the capacity of a regional organization to promote integration or ecosystem approaches for fisheries amongst competent government departments and non-state actors (e.g. fisher's organizations, private sector, CSO/NGOs).
11. This session document however, will only focus on the role of the formal lake or river basin organizations and other regional fishery bodies in the management of inland fisheries in Africa.

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<sup>3</sup> [https://www.riob.org/IMG/pdf/AWRB\\_Source\\_Book.pdf](https://www.riob.org/IMG/pdf/AWRB_Source_Book.pdf)

<sup>4</sup> <https://ecdpm.org/wp-content/uploads/African-river-basin-organisations-ECDPM-Discussion-Paper-236.pdf>

### **Lake Victoria Fisheries Organization (LVFO<sup>3</sup>)**

12. The LVFO was established by a convention signed in 1994 by the three partner States that share Lake Victoria (Kenya, Uganda and the United Republic of Tanzania). The LVFO Convention was amended in January 2016 to open membership to all of the EAC Partner States and to extend the competence of the LVFO to the fisheries and aquaculture. Currently has four members (Burundi, Kenya, Tanzania and Uganda)
13. *Area of competence:* Sustainable utilization of the living resources of Lake Victoria.
14. *Species covered:* All aquatic species of Lake Victoria. The most commercially important species are: Nile perch (*Lates niloticus*), Nile tilapia (*Oreochromis niloticus*), dagaa (*Rastrineobola argentea*), haplochromines, catfishes (*Clarias gariepinus*, *Bagrus docmack*) and lungfish (*Prototerus aethiopicus*).
15. *Membership:* The current members of the LVFO are: Kenya, Uganda and the United Republic of Tanzania.
16. *Objective:* The objective of the LVFO is to foster cooperation among the partner States by harmonizing measures, and developing and adopting conservation and management measures for the sustainable utilization of the living resources of Lake Victoria for maximum socio-economic benefits.

### **Lake Tanganyika Authority (LTA)**

17. The Lake Tanganyika Authority (LTA) was established through a convention (Convention on the Sustainable Management of Lake Tanganyika) in 2008 by the governments of Burundi, Democratic Republic of Congo, Tanzania, and Zambia.
18. *Area of competence:* Sustainable Management of Lake Tanganyika.
19. *Species covered:* To safeguard the Lake Tanganyika basin and its natural resources i.e. the mandate goes beyond fisheries and aquaculture
20. *Membership:* The current members of the LTA are: Burundi, Democratic Republic of Congo, Tanzania, and Zambia.
21. *Objective:* The objective of LTA is to promote regional cooperation required for socio-economic development and sustainable management of the natural resources in the Lake Tanganyika basin. The Convention recognizes the significance of Lake Tanganyika and its basin for the development of the riparian states, and the necessity of establishing a sustainable legal and institutional framework for cooperative management.
22. *LTA functions related to fisheries*
  - a) to promote sustainable fisheries management on Lake Tanganyika by taking appropriate measures to prevent and reduce as far as possible adverse impacts from fishing activities .
  - b) to implement and enforce a framework of fisheries management plan for Lake Tanganyika.

- c) to develop harmonized national fisheries policies based on the relevant principles set out in the Code of Conduct for Responsible Fisheries.
- d) to develop, adoption, implementation and enforcement of harmonized legal, Administrative and technical measures to manage fisheries, to eliminate Unsustainable-fishing practices, and to reduce the pressure on over-exploited fisheries by, in particular, regulating fishing effort.
- e) to promote broad participation in fisheries management including the development of community based management structures with due regard to local conditions.

### **Progress in regional inland fisheries and aquaculture management**

- 23. A clear legal framework establishes both the LVFO and LTA, have clear mandates and functions that are compatible with their legal nature and mission in conformity with the basic principles of fisheries governance.
- 24. LVFO as a pioneer RFBs in the region has played a crucial role in the sustainable management of the largest freshwater fishery in Africa. LVFO specifically set up structures up to the resource users or the community level in form of co-management units and Standard operating procedures (SOPs) by various technical working groups, which can be adapted by other institutions.
- 25. LVFO and LTA have made considerable progress in strengthening governance through implementing the ecosystem approach to fisheries and adopting the precautionary approach.
- 26. LVFO and LTA are working to strengthen international cooperation, promote transparency, address non-members, and enhance monitoring, control and surveillance (MCS) measures, including the implementation of the FAO Voluntary Guidelines for securing sustainable small-scale fisheries.
- 27. LVFO has been in the process of expanding the mandate of LVFO since the two states (Burundi and Rwanda) became members of EAC in 2005 but could not automatically become members of LVFO. The convention of LVFO was amended in 2006 to allow any member of EAC to automatically become members of LVFO which provision has facilitated the inclusion of Burundi into LVFO. The two states of EAC (Rwanda and South Sudan) are yet to join. Under the proposed new arrangement of EAC countries LVFO would expand its mandate so that it has an east African outlook including parts of the Indian Ocean. The LVFO would then be renamed the East African Fisheries Organization (EAFO).

### **Challenges and suggested remedies to improved performance of RFBs**

- 28. *Commitment of members of RFBs:* States are independent but often come together under the RFB because of their common interest and concern for conserving and managing their mandated fish stocks, thus, RFBs can only be as effective as their members permit. Lack of political commitment by members of some RFMOs results into sustained declines in

inland fisheries and is incompatible with sound regional fisheries management, which further hinders RFMOs to meet and address conservation and management challenges.

29. *Overlaps and multiple memberships in RFBs and RECs:* Membership of states to multiple RFBs and RECs has raised some concern for example United Republic of Tanzania and Burundi belong to both the EAC and SADC which presents a challenge especially in ensuring remittance of country contributions to the institutions.
30. *Funding:* Most of the RFBs and WBCs often have financial shortfalls to implement their elaborate mandates and functions. Most times the institutions depend on external funding from donors and well-wishers. Some members occasionally find challenges in meeting their mandatory contributions to the institutions due budget short falls all of which impede performance of RFBs.
31. *Institutional capacities:* The secretariats are understaffed and this compromises their coordinating roles due to funds limitations. Limited opportunities for exchange visits among the RFBs to share expertise as institutions that collaborate with excellent performing institutions to implement their activities tend to improve, but capacity-building initiatives are only dependent on donor projects. Limited research scientists from members to support necessary backup to RFBs and equipment for information gathering and analysis; and monitoring and control of fishing activities.
32. *Implementation of Projects and Programmes:* The RFBs are entirely dependent on external financial support to implement their mandates and functions relating to fisheries resources development. However, these funds are occasionally not forthcoming and this affects delivery of RFBs. Strengthen the RFBs in fund raising and packing of fundable projects. Encourage members of RFBs to make timely contributions to the institutions to ensure continuity of RFBs projects and programmes
33. *Harmonized coordination of aquaculture development:* To accelerate and sustain start up the aquaculture initiatives in the region, there is need for a coordinated and centralized structure to steer the development. The establishment of African Centre of Excellence for Aquaculture (ACEA) as outlined in the AU Policy Framework and Reform Strategy should be therefore be expeditiously fast tracked and supported.
34. *Information sharing and exchange:* Limited sharing of information among the RFBs was another identified major challenge. Information is a key necessity in the management of inland fisheries and aquaculture to avoid duplication of effort and creating synergies. There is an urgent need for a pan African fisheries information platform to facilitate information sharing on fisheries and aquaculture in the continent and AU-IBAR is called upon to support and strengthen ANAF in this direction.
35. *Institutional collaboration with RFBs and RECs:* Currently little or no collaboration exist between RFBs and most of them only interact at meetings organized by FAO like COFI/CIFAA or those organized by the corresponding RECs. Although this can be constrained by multiple memberships of states to RECs highlighted above the collaboration and networking is highly encouraged because it facilitates exchange of information and skill among RFBs and enhanced performance.

36. *AU and principles of subsidiarity*: In implementing continental initiatives, the AU should apply the principle of subsidiarity by going through the RECs up to the regional bodies.
37. Strengthening the RFB's institutional capacity to deal more effectively with conservation and management issues is a high priority for the CIFAA as it seeks to define the Committee's role through the revision of its terms of reference. There is a need to build capacity in certain areas and establish closer links with partner institutions in order to define the roles and responsibilities of relevant bodies and to develop a synergistic region-wide management programme.

## **Conclusions**

Production of inland fisheries is dependent upon the quantity and quality of freshwater and aquatic habitats and is predominantly influenced by factors external to the fisheries. Many of the competing uses of freshwater resources, including agriculture, domestic use and hydroelectricity generation, and the lack of cross-sectoral integration among them are impacting the fisheries in multiple ways. The current session document highlights the importance of inland fisheries and aquaculture amidst other competing uses and constraints to sustained production. The document further introduces the role of lake or river organizations, challenges and possible remedies on how the lake or basin organization can contribute to sustainable utilization of inland fisheries and aquaculture.

## **SUGGESTED ACTIONS BY THE COMMITTEE**

The Committee is requested to reflect on roles played by the lake or river basin organizations, challenges and suggest strategies how best these lake or river basin organizations can be repositioned to address the basin specific constraints that hinder inland fisheries and aquaculture production to facilitate socioeconomic transformation at national, sub regional and regional levels in the sub-Saharan Africa.