



Changing Great Lakes of the World (GLOW IV):

An overview

An International Symposium of the Aquatic Ecosystem

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Session 1: Lake Tanganyika

Three full days were dedicated to presenting research results and to discussing the way forward for research and management of the natural resources in the World's Great Lakes. This all took place in Bagamoyo, Tanzania in February 2006.

The theme of the fourth Great Lakes of the World (GLOW) Conference was “Changing Great Lakes of the World”, with particular emphasis in the form of a case study on Lake Tanganyika. This lake is surrounded by four nations, of which two are French and two English speaking (apart from the many vernacular languages in the region). Two countries experienced civil strife in the recent past. This situation seriously hampered progress in resource research and management, not only in the two countries, but in fact lakewide.

Still, a good number of papers and posters were presented which led to interesting plenary deliberations during the panel discussion. The following conclusions were drawn:

- Natural fluctuations in fish abundance on the lake require further research
- Better understanding of genetics and geographic variability of species is required, as well as additional taxonomic studies of relevant species groups
- Better monitoring is required of the existing fisheries, but also of the habitat degradation (particularly physical changes)
- International awareness creation is required in relation to biodiversity values and the threats to their conservation

An update was presented on the progress made regarding the preparation of a multi-donor integrated management project on Lake Tanganyika to be financed by the African Development Bank, United Nations Development Program and Global Environment Facility, Food and Agriculture Organization, World Conservation Union and Nordic Development Fund, as well as the four riparian Governments. The basis for this project was laid by the preparation of a Framework Fisheries Management Plan and the Convention on the Sustainable Management of Lake Tanganyika.

It is expected that this project will re-establish fisheries and environmental monitoring, plus integrated management of the lake's resources by involving the stakeholders, including Governments, in managing the lake and its basin. A significant change will be obtained from the establishment of the Lake Tanganyika Authority (LTA), a regional fisheries and environmental management organization, with National

Coordination Units at national level. The following activities are foreseen in the fields of fisheries and environmental conservation:

- Resource assessment and fisheries monitoring
- Harmonization of legislation, policies and management strategies
- Reduced post-harvest losses
- Environmental monitoring and mitigation measures
- Construction of water treatment plants
- Involvement of local communities in development and management of the lake
- Creation of awareness and poverty reduction

During the plenary session the potential impact of climate change on the African Great Lakes was deliberated, and it was recognized that certain types of data and information are simply lacking for a better understanding of the cross-cutting issues that affect the lakes' wellbeing.

Session 2: Lake Victoria

The value of this lake is widely recognized, particularly because of the economic activities that have been conducted in the past decades. Concern was expressed however regarding the open access to the fishery and the ever increasing fishing effort. Despite the formation of Beach Management Units (BMUs) the ideal management strategy is still being sought. This Great Lake has experienced a number of changes in the recent past:

- Upsurge of the Nile perch fishery and its processing industry
- Invasion of the exotic water hyacinth and its control
- Over-exploitation of the Nile perch and upsurge of the *Rastrineobola* fishery
- Eutrophication which has been going on for an extended period
- Drawdown due to hydropower generation
- Encroachment of human population at expense of buffer capacity of wetlands

This lake is blessed with an operational Lake Victoria Fisheries Organization (LVFO, and since 2007 also a Lake Victoria Basin Commission, LVBC), which can be conducive to managing the valuable fisheries resources and which could serve as an example for the Lake Tanganyika situation. The LVFO can be instrumental in guiding the BMUs in the region, although it has been recognized that training of the BMU members deserves high priority in order to be effective. Capacity building is an important feature of assistance provided by various organizations active in the field of managing the lake's resources.

Session 3: Comparing Great Lakes of the World

With the LVFO in place on Lake Victoria and the LTA to become active in the near future on Lake Tanganyika, it was duly noted that the Great Lakes Fisheries Commission on the North American continent has gone through the various stages of development already. There are many lessons to be learned from the Laurentian Lakes, particularly in the field of cross-border collaboration, joint strategic plans for management and combating invasive species. Also the studies on food web dynamics show good examples for research to be conducted on the African Great Lakes. It was concluded also that the necessary institutional arrangements at regional levels are instrumental for sound management of both living and non-living resources.

Session 4: The way forward

During the plenary discussion it was agreed that in general for all Great Lakes the following issues are relevant:

- Lakes can only sustain fishing to a certain limit. As a result, at a certain stage it becomes necessary to concentrate on land-based activities (e.g. alternative employment)
- The importance of participatory management was emphasized

- Fishing pressure can be reduced by alleviating poverty and improvement of economic status of the people
- Continued fight against invasions and discouragement of new introductions
- Reduced habitat destruction

The twinning of regional management bodies has been discussed and there are numerous opportunities for further collaboration and exchange of experiences. New funding mechanisms should be explored, particularly for the African management organizations. Regional data and information centres are required to serve as databanks, particularly with the high yield of data during operational and upcoming research projects. Results from fisheries and environmental monitoring should be properly stored and be accessible for further analysis. In order to improve accessibility, the need was expressed to promote better internet connections and access to virus checking software. In that way, the existing literature in other parts of the world also becomes more easily accessible.

It was also expressed that national capabilities in countries bordering Great Lakes have increased considerably, but that the link between research and monitoring on the one hand and policy development and management strategies on the other, is still weak. Therefore the creation of awareness is very important and here the AEHMS could play an important role by putting the monitoring and management aspects of Great Lakes on the agendas of scientists, stakeholder groups, policy makers and politicians both at national and international levels.

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African Great Lakes

