MilanMUN 2022

Study Guide

Committee **UNEP**
Student Officer(s) **Giulia Bazzani**

Saving Lake Victoria

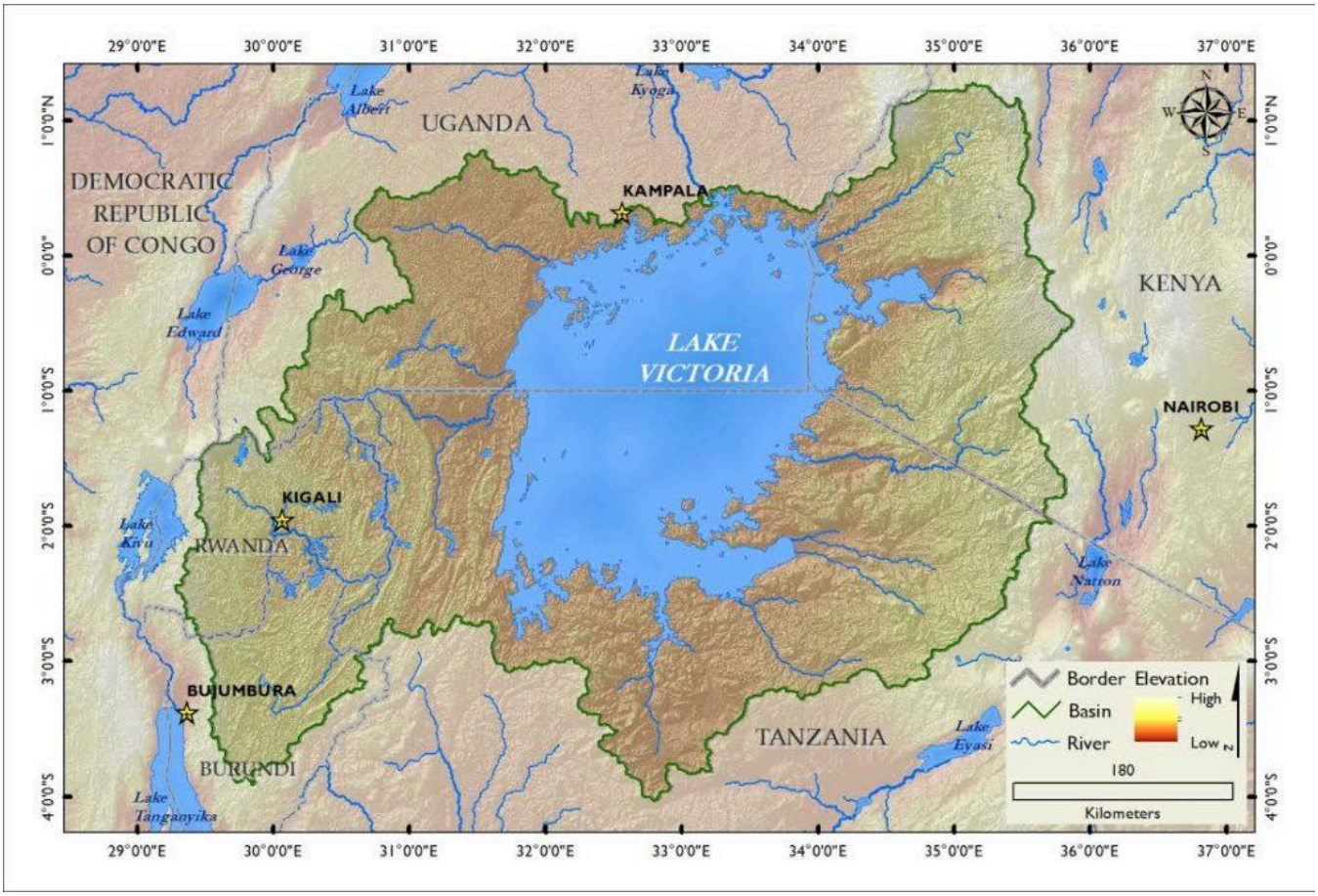
Introduction

Lake Victoria is the world's second largest freshwater lake, the largest lake in the African Great Lakes region, and it is the source of the Nile river. The lake's area is divided among three countries: Kenya, Uganda and Tanzania (with Rwanda and Burundi also part of its drainage basin).

Background Information

The lake supports the largest freshwater fishery in the world, and a population of over 40 million people. However, this is growing at a fast rate yearly, making the whole situation environmentally unsustainable. The basin countries (apart from Kenya) are among the poorest in the world, with most of their population living on less than $1.25 per day. Many of the people have no access to clean and portable water or improved sanitation facilities, resulting in high incidences of water-related diseases.

Over the last decades, the lake has faced several environmental problems, such as pollution, biodiversity loss, fish kills, habitat destruction, invasion of alien species, eutrophication, soil erosion, deforestation, loss in water quality, waste contamination. Due to this situation, parts of the lake are now considered dead zones, unable to sustain life due to a lack of oxygen.



Apart from reducing the lake's flora and fauna, these threats have caused serious damage to the local population dependent on it for its sustainment.

Governance

In the last decades, the several attempts made to develop and conserve natural resources have not been very successful. The main reasons are: the short-time period of projects, poor coordination between regional institutions (e.g. East African Community, Lake Victoria Basin Commission and Lake Victoria Fisheries Organisation), lack of funds, and limited awareness of the whole issue. Although local research centres have generated some information to guide development and conservation of natural resources, they lack funds to pursue projects or carry on studies.

Analogously, projects carried out by international organisations and funding agencies, eg. the World Bank and European Union, did not have the hoped-for results, facing similar challenges to those above mentioned.

Future Scenarios

There are different ways in which Lake Victoria's environmental resources can be managed, each with different implications and outcomes. In regard to the environmental development of the area, academic studies identify four main scenarios:

No Development Scenario

- **Basic assumptions**: a return to old environmental practices and a low population density;
- **Primary goal**: subsistence without any commercial aims;
- **Main systems**: communal grazing lands and farmlands, settlement areas and special purpose areas. Energy would be obtained mainly from forests (firewoods and other natural sources).

Despite the limited resource exploitation, this scenario would help the preservation of the lake's original environmental state.

Current Practices

- **Basic assumptions**: a continuation of current environmental exploitation practices;
- **Primary goal**: commercial exploitation of the available resources;
- **Main systems**: government trust land and individual ownership, which will worsen the collapse of traditional community land use structures. Energy sources would be wood fuel, hydro-power, cooking gas and limited clean and renewable sources.

In this case, environmental degradation would persist due to the unsustainable management of natural resources.

Best Practices

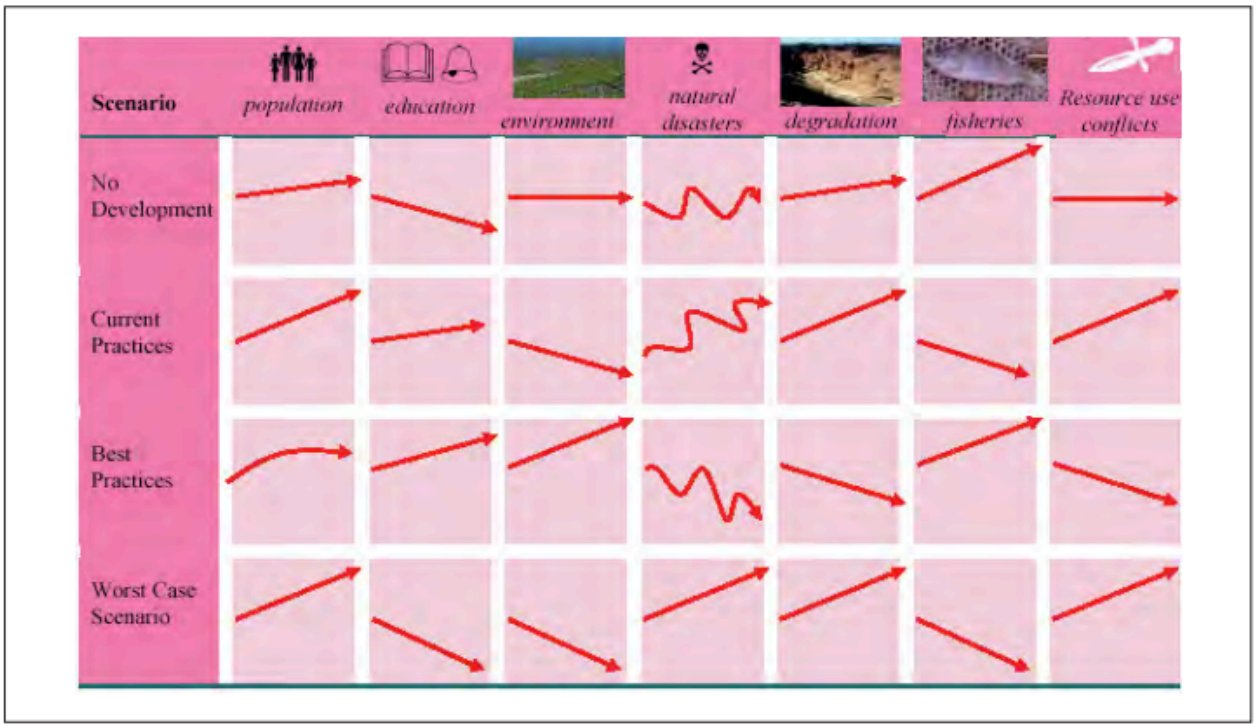
- **Basic assumptions**: environmental management is at par with social, economic, and environmental benefits, with least possible impacts on the lake and its resources;
- **Primary goal**: achieving economic gains while ensuring ecological sound practices;
- **Main systems**: land use strategies aim to imitate ecosystems, thanks to sustainable management of natural resources which also mitigates degradation. Also, traditional practices can be restored if these are able to meet the given goals that also guarantee conservation.

This scenario guarantees pathways to a sustainable future, by reducing communities' vulnerability to natural disasters, increasing literacy levels, boosting economic and agricultural productivity, improving the environmental status of the lake, reducing poverty and unemployment levels, decreasing internal and cross-boundary conflicts.

Worst Case Scenario

- **Basic assumptions**: extremes of unsustainable use of the basin's resources and dedicated subsidies;
- **Primary goal**: uncontrolled exploitation of resources;
- **Main systems**: adopted practices will lead to a rapid decline of the ecological integrity of the lake and its surroundings.

In this scenario, rates relating to environmental degradation are highest. The increase of the population does not match economic growth, thus reducing the quality of life. A rapid escalation of conflicts is expected. As a result, agricultural and economic productivity would be lowest in this situation.



Possible Solutions

- ➔ Adopting new approaches to land and water resources management;
- ➔ Promoting sustainable agriculture;
- ➔ Helping local institutions to work together effectively;
- ➔ Matching policies and regulations across agencies;
- ➔ Encouraging stakeholders to take action;
- ➔ Educating the public about alternative sources of sustainment;
- ➔ Putting people in the centre of the land and water management process in order to ensure its sustainability;
- ➔ Ensuring that socio-economic development goes hand in hand with resource conservation;
- ➔ Supporting indigenous environmental knowledge;
- ➔ Applying appropriate technologies;
- ➔ Reforming agricultural policies with the aim of slowing down or halting the conversion of environmentally fragile or ecologically valuable lands to agricultural or other land uses;
- ➔ Facilitating the scientific research on the basin and surrounding land;
- ➔ Sharing information, advice, technology, and best practices to farmers and other stakeholders;

- ➔ Implementing an environmental degradation early warning system for the lake in order to provide data, information, and analyses for interventions.

Sources & Useful Links

LAKE VICTORIA BASIN ENVIRONMENT OUTLOOK

Lake Victoria

Lake Victoria | AGLI

UN co-organizes campaign to clean up pollution in Lake Victoria

Ecosystem-based Adaptation in Lake Victoria | UNEP - UN Environment Programme

Reviving Lake Victoria by Restoring Livelihoods