

KENYA

ENVIRONMENTAL ISSUES AND EDUCATION

The example of lake Victoria region.

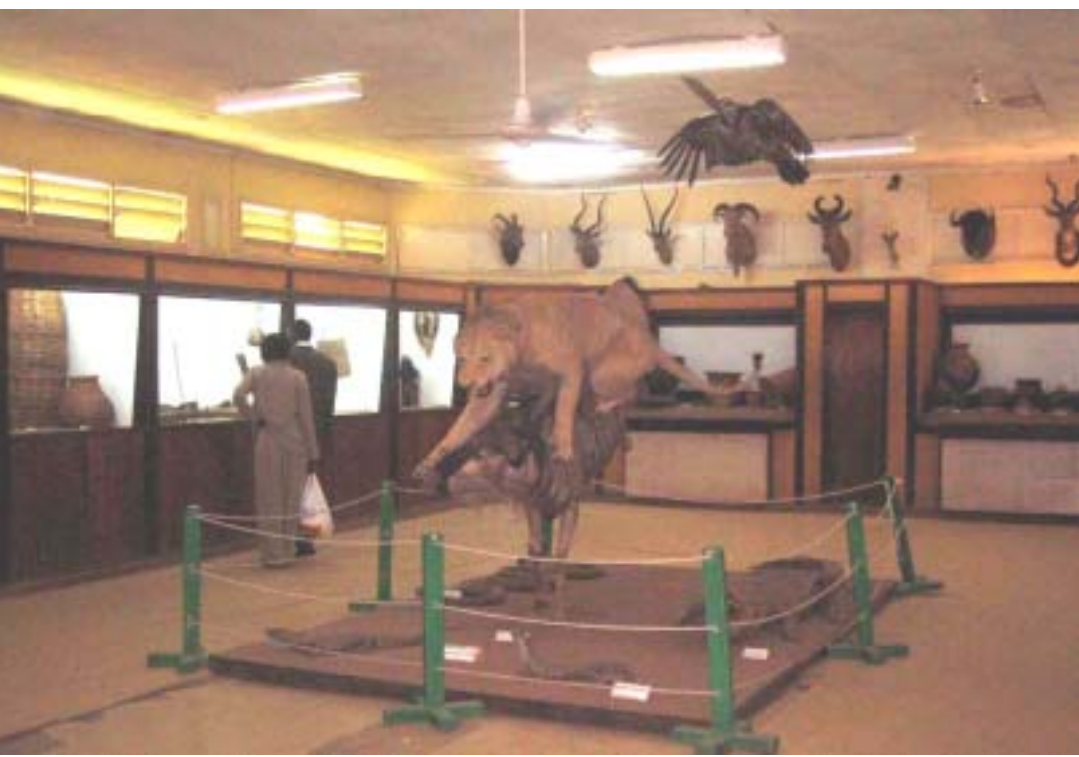
KISUMU MUSEUM



Opened in 1980

Both a cultural and a Natural History Museum.

THE MAIN GALLERY







TRADITIONAL HOME AT THE MUSEUM

Some major environmental problems in Kenya today include:

- Air and water pollution.
- Soil erosion
- Unmonitored garbage disposal
- Deforestation
- Endangered wildlife species
- Drought, famine and floods.

Lake Victoria

- The lake basin drains 10% of Kenya's land surface
- Rivers draining into the Lake include: Nzoia, Mara, Yala, Nyando, Sondu-Miriu, Awach and Kuja.
- There are over three hundred species of fish consisting of about 39 non-cichlids and the rest are cichlids.



The local communities in this region depend heavily on this resource for their livelihood

FISHERIES

- In the 60's there was evidence of over fishing recorded from decreased gill net catches.
- Proposals were made for the **introduction of Nile perch**, *Lates niloticus* (L.) and this was done from from Lake Turkana.
- Others included the **Nile tilapia** (*Oreochromis niloticus*), *O. leucostictus*, *Tilapia rendalii* and *T. zillii*
- It took up to ten years for these species to pick up in the Lake.

Some indigenous species of L.
victoria



Afromastacembelus frenatus



Synodontis afrofisheri



Mormyrus kannume



Brycinus sadleri



Synodontis victoriae



Clarias gariepinus

Environmental changes around the Lake basin

- In the **agricultural** catchments of Lake Victoria a lot of **fertilizer** is used to grow **coffee, sugarcane and food crops** (maize, millet).
- Some of these are washed into the lake resulting in heavy nutrient loads.
- **Untreated effluents** from **urban centers** –Kisumu and Homa Bay further increase these loads.





Increase in population has resulted in conversion of wetland ecosystems that have been filtering all inflowing waters.



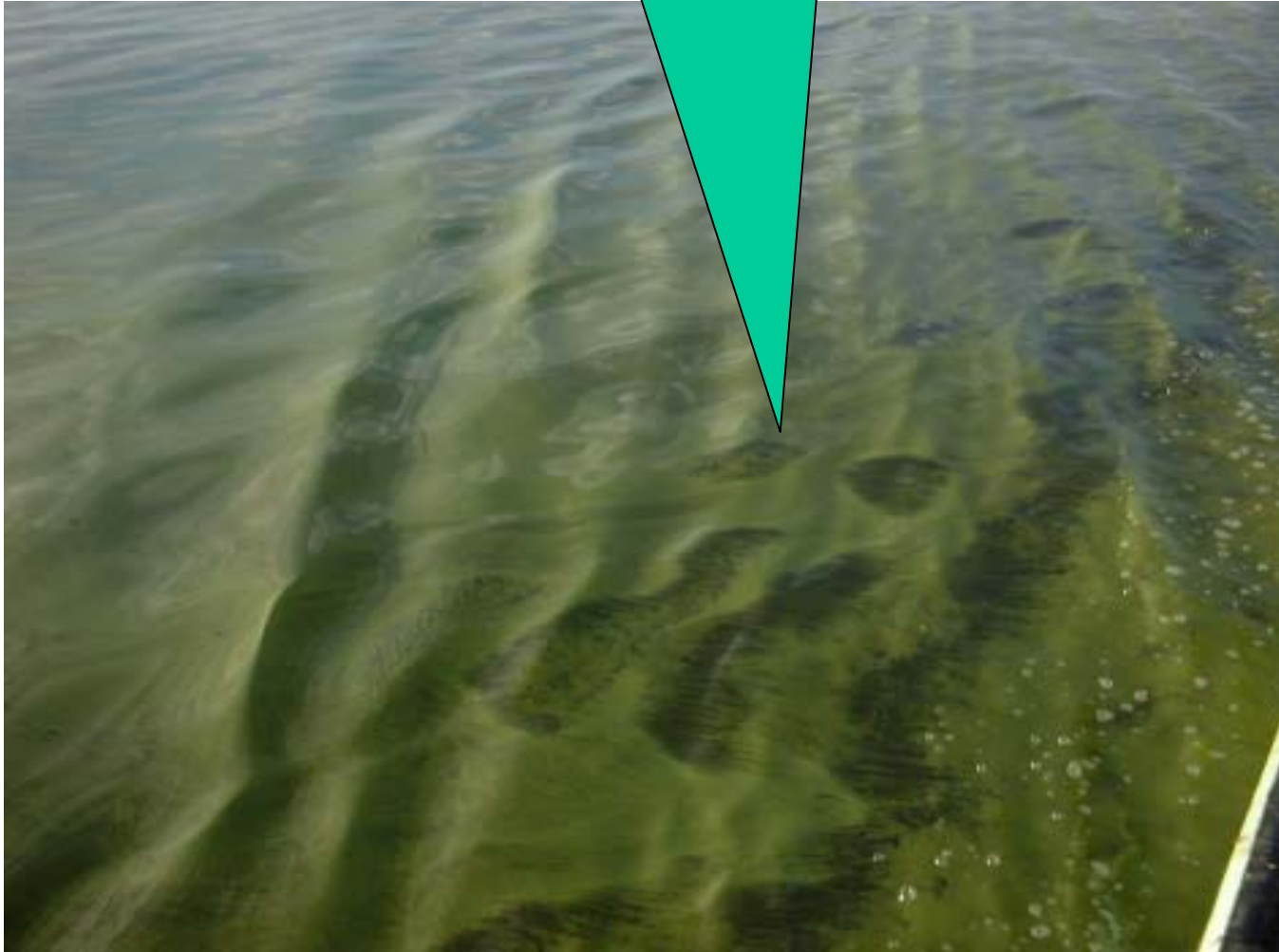


Wetland degradation in the Yala swamp

- **Industrial expansion** in western Kenya including **paper mills, breweries, coffee processing, sugar refineries and agro-chemical products** have contributed in the changes in fish distribution.

As a result, the Lake is experiencing the following problems:

Algal blooms





A free floating weed, *Ceratophyllum demersum*



Hyacinth closing the port at Homa Bay



Hyacinth plant at Usenge beach, Siaya

EDUCATION AND AWARENESS

Environmental education in Kenya today is carried out in two dimensions: one approach is geared towards teaching about nature and ecology, in subjects like biology, natural science and geography. This approach is used in the classroom situation where the teachers have to follow to a given curriculum.

Environmental education is a compulsory subject at university level, for those taking degree courses in education

.

.

The second approach involves creating awareness, developing skills and active participation. This method is used in school to a small degree in the extra curriculum activities

Schools have clubs such as environment clubs, young farmers clubs, geography clubs and wildlife clubs, in which students are members and take part in various environment awareness and conservation activities.

Government departments and NPO s that are involved in conservation, also participate in environmental education,by involving the public in their activities.

Such organizations include:

the National museums of Kenya,

the Kenya wildlife services,

Nature Kenya and

the Wildlife clubs of Kenya. To mention but a few.



60% of visitors to Kisumu museum are school groups

Interactive programs at the museum.



Children dissect and study fish at the museum



Protein test.

-Fish as the best source of protein.



Children learn traditional methods of fish preservation at the museum.

The young researchers club. Kisumu museum.



-Members: 50

-age: 9 to 14

-Meetings: once every 2 months

-Publications: one children's` newsletter every 2 months.

-Topics: natural sciences and environmental issues.