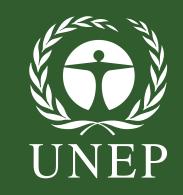
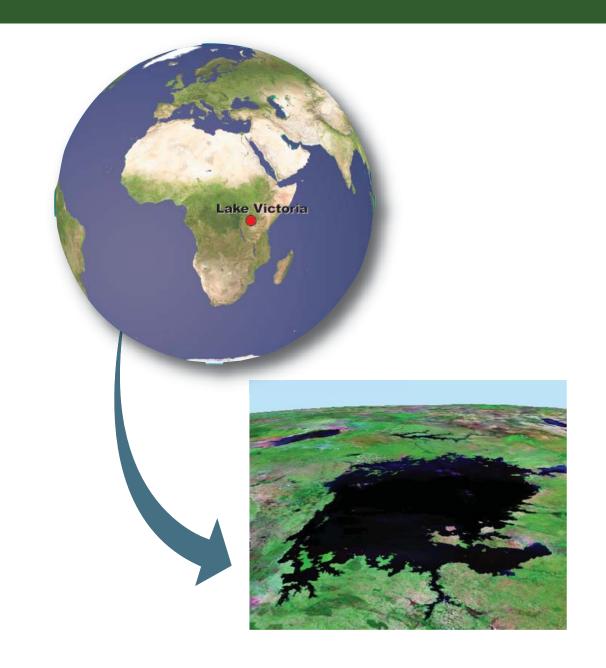
Lake Victoria: Falling Water Levels Concern for Growing Population

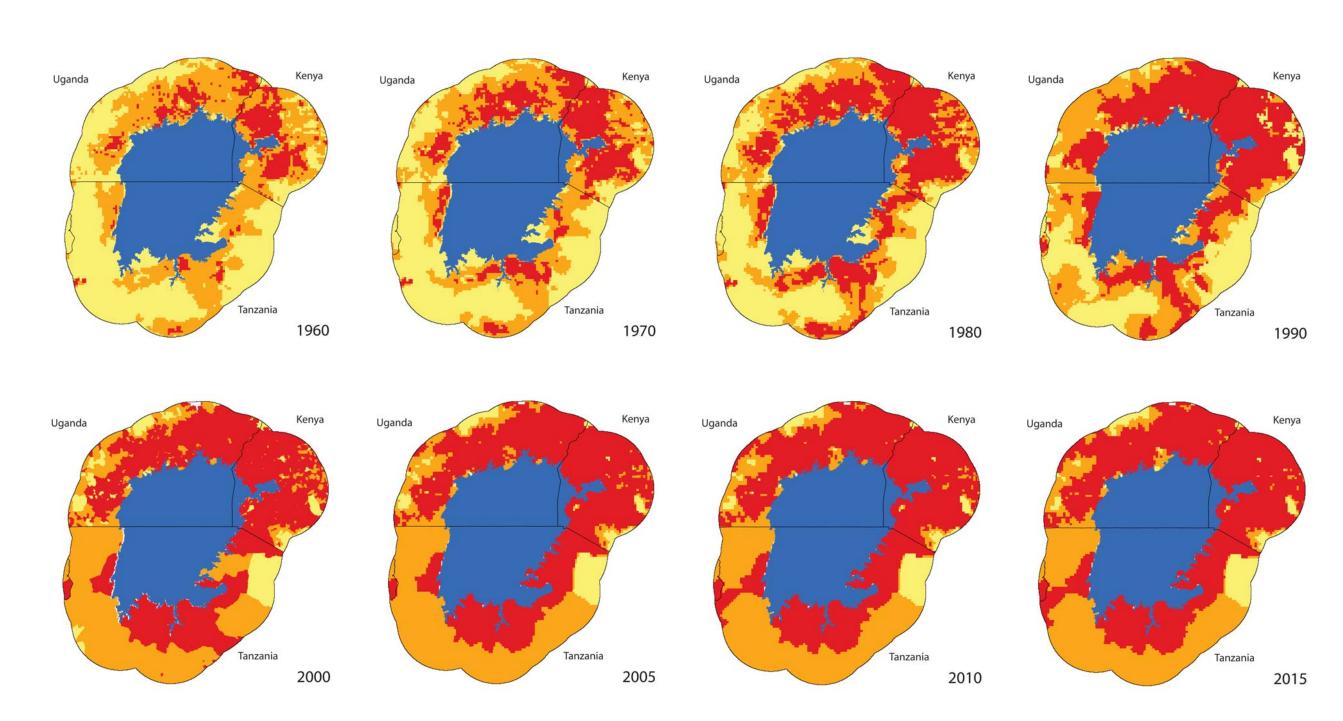




Population Growth Around Lake Victoria

The largest freshwater lake in Africa and the second largest in the world, Lake Victoria occupies a total catchment of about 250 000 km², of which 68 870 km² is the actual lake surface (URT 2001). Lake Victoria is bordered by Kenya, Uganda, and Tanzania and is the most densely populated rural area in the world. The lake is a crucial resource to more than 30 million people, providing potable water, hydroelectric power, inland water transport, and supports many different industries such as agriculture, trade, tourism, wildlife, and fisheries (USDA 2005).

Population growth around Lake Victoria is significantly higher than the rest of Africa. During each decade, population growth within a 100-km buffer zone around the lake outpaced the continental average. This reflects growing dependency and pressure on lake's resources. The population change is graphically represented below. The graphics also show projected growth for 2010 and 2015.





Population Density

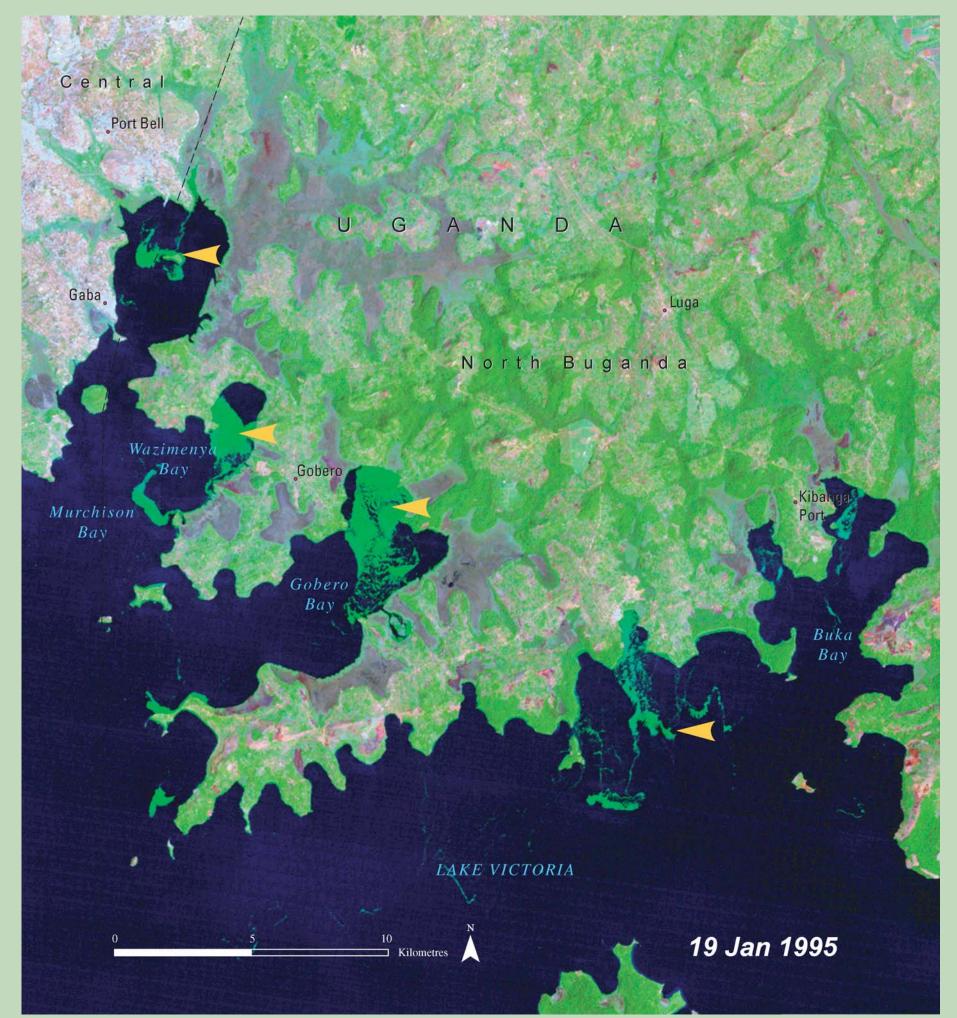
< 25

25 - 100

> 100

Water

Country Boundary

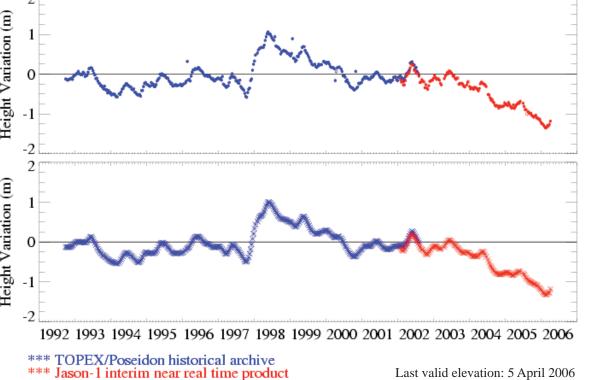


Shared by Kenya, Tanzania, and Uganda, Lake Victoria is the second largest freshwater lake in the world. The infestation of Lake Victoria by water hyacinth in the 1990s disrupted transportation and fishing, clogged water intake pipes for municipal water, and created habitat for disease-causing mosquitoes and other insects. This led to the initiation of the Lake Victoria Environmental Management Project in 1994. The focus of the Project was to combat hyacinth infestations on the lake, particularly the region bordered by Uganda, which was one of the most severely affected areas.



The 1995 image shows several water-hyacinth-choked bays: Murchison Bay near Gaba; large parts of Gobero and Wazimenya Bays; an area outside Buka Bay; and near Kibanga Port (yellow arrows). Initially, water hyacinth was controlled by hand, with the plants being manually removed from the lake. But re-growth quickly occurred. A more recent control measure has been the careful introduction of natural insect predators of water hyacinth. As the 2001 image shows, this approach seems to have been successful, as the floating weeds have all but disappeared from all the locations noted above.

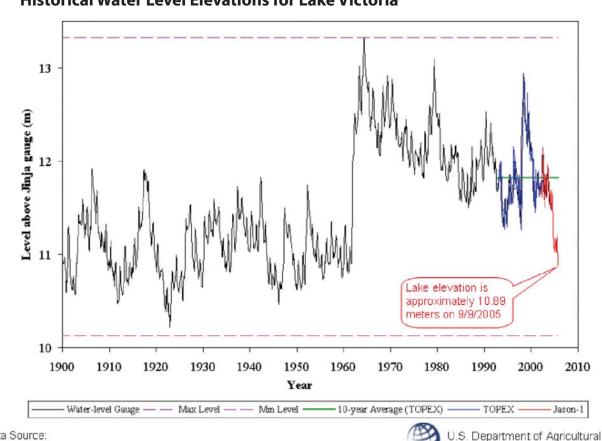
Lake Victoria Heigh Variations TOPEX 10 Year Geo-referenced 10Hz Along Track Reference 2 Lake Victoria's level variations



Lake Victoria's level variation, derived from satellite altimeter measurements, shows a negative height variation trend—even after the significant inflows of water from the 1997-98 flooding. Water levels have remained above-average for more than 40 years, but current water levels are below normal and the lowest level since September, 1961. This pattern should be of long-term concern to all the countries of East Africa, as well as those along the Nile Basin.

In the 105-year history of accurate measurements on the lake, water levels have fluctuated widely. In 1961 and 1962, for example, heavy rain drove water levels up by an astounding 2 metres. Since then, levels above the gauge in Jinja, Uganda, stayed above 11.9 metres (about 1 134 metres above sea level) until December 2005. Since December 2005, water levels dropped to alarmingly low levels and are not expected to stop dropping until the rains arrive (NASA 2006).

Historical Water Level Elevations for Lake Victoria



Data Source:
Historical water level gauge data from Jinja, Uganda (near Lake Victoria's outlet)
Satellite radar altimeter data from USDS/NASA/UMD at:
http://www.pecad.fas.usda.gov/cropexplorer/global_reservoir/

