

Editorial

The “Eye” of Africa: A Vision of Lake Victoria Basin as an Environmental Observatory

Since my days as a schoolboy in geography class, I have not been able to observe maps of the African continent without also “seeing” the profile of a face, with Lake Victoria representing the right eye, gazing adoringly at Madagascar (Figure 1). John Hanning Speke, the first European explorer to describe the shores of Lake Victoria wrote in 1858:

“...This view was one which, even in a well-known and explored country, would have arrested the traveller by its peaceful beauty.”

The fertile Lake Victoria basin now supports more than 30 million people, among the most populous multinational regions of the world (Figure 2). With rapid population growth an increasing productivity, comes various stresses on people and the environment. For example, satellite images have documented dramatic decreases in water levels in the lake since 2005. Pollution and eutrophication are rampant, and the harvest of renewable resources is dwindling (Figure 3). This is a precarious situation that warrants urgent monitoring and planning. Although the “big” picture can be recorded through orbiting satellite instruments such as the Jason-1 satellite, operated jointly by NASA and the French Space Agency Centre National d’Etudes Spatiales (CNES), the societal dimensions of emerging changes in the basin are best documented by “foot” scientists on the ground. Government officials also have to be made aware of findings at all levels, so that we can plan to protect the most vulnerable people. Such coordinated efforts should constitute a formally designated Environmental Observatory with resources provided by all the surrounding countries to support research, reporting, and implementation of corrective measures.

The beginnings of such coordinated research efforts are apparent in the eleven articles presented in this special edition of the African Journal of Environmental Science and Technology. These articles present extremely valuable findings on indigenous knowledge, land use management, pollution, and socioeconomic sustainability. Collectively, they represent a small but important cohort of research being conducted on Lake Victoria Basin. The articles should also serve as inspiration for additional research.



Figure 1. The physical geography profile of Africa resemble a face looking Eastward with Lake Victoria representing the “eye” gazing adoringly at Madagascar. Image by courtesy of NASA. <http://earthobservatory.nasa.gov/Study/Victoria/victoria.html>.

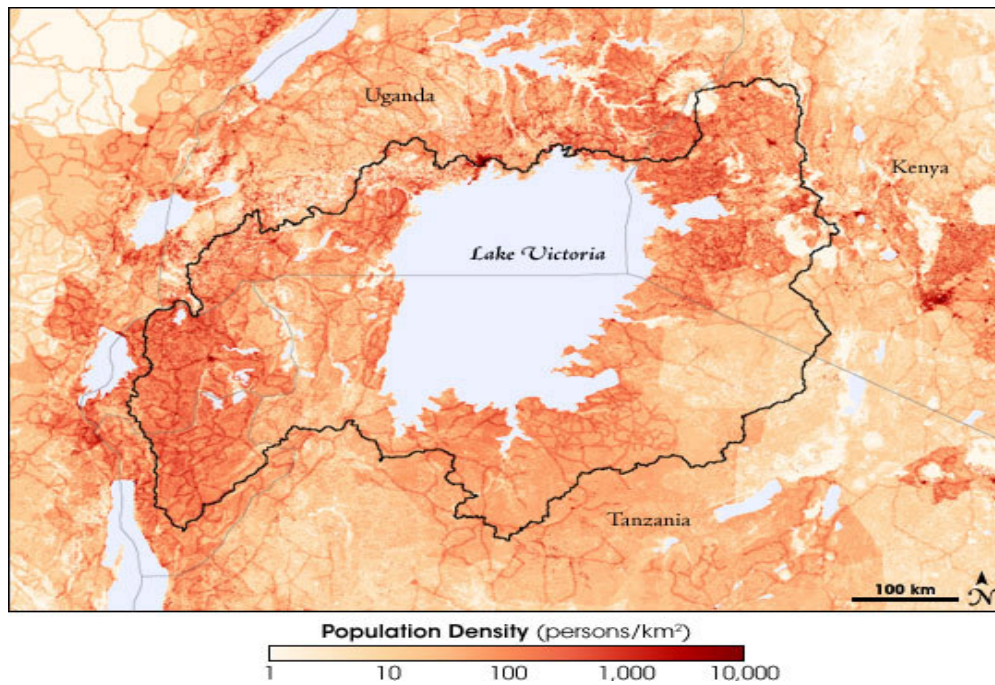


Figure 2. Population density around the Lake Victoria Basin has increased rapidly in the last century, accompanied by stresses on the ecosystem. Map by courtesy of NASA. <http://earthobservatory.nasa.gov/Study/Victoria/victoria2.html>.



Figure 3. Demands on Lake Victoria waters include support industrial activities, generation of electricity through the Nalubaale Dam (panel A), and domestic fishing (panel B). Photograph credit: United States Department of Agriculture.

Oladele A. Ogunseitan, Ph.D., M.P.H.
 Program in Public Health & School of Social Ecology
 University of California, Irvine
 CA 92697, USA

Editor-in-Chief