

Project Update: March 2022

Introduction

Briefly, my research investigated how and over what time of the year nutrients (nitrogen and phosphorus) from soils of farming activities and water catchments affect water quality and promote cyanobacteria blooms. I further wanted to understand how this might affect the feeding requirements of lesser flamingos in the lakes.

Activities achieved

- Assessment of land use/cover change over time and quantification of associated soil properties, soil and water nutrients and algal biomass.
- Lesser flamingo local population counts, including the access to grey data on population sizes.
- Assessment of social-economic activities in the villages bordering the lakes.

Challenges

The Covid-19 pandemic and the steps taken by the Tanzanian Government to limit infection rates had an impact on the research area's typical data collection schedule in the Arusha National Park. Regrettably, I became a victim of the pandemic as well. As a result, data collection for some objectives was delayed, affecting subsequent operations such as report writing.



Figure 1. Collection of water samples for nutrient analyses at Lake Rishateni, Arusha National Park, Tanzania. We had to use a canoe because engine boats are not allowed to avoid pollution.

Activities ahead

So far, I have completed the field work. I have begun work on the report, which also involves manuscripts preparation for paper publishing. I promise to share the whole report before the end of the year. You will also receive copies of published papers. Below are some of the photographs from the field work (collection of water samples, lesser flamingo counting and collection of soil samples) that can be of interest or useful for the website.



Figure 2. Lesser flamingo counting using ground census method at Lake Rishateni, Arusha National Park, Tanzania. © Deogratias Lihepanyama.



Figure 3. Lesser flamingos caught up feeding along the shore of Lake Rishateni, Arusha National Park, Tanzania. © Deogratias Lihepanyama.



Figure 4. Lesser flamingos caught up feeding along the shore of Lake Rishateni, Arusha National Park, Tanzania. © Deogratias Lihepanyama.



Figure 5. Lesser flamingos caught up asleep after feeding along the shore of Lake Big Momella, Arusha National Park, Tanzania. © Deogratias Lihepanyama.



Figure 6. Collection of soil samples for nutrient analyses around Lake Big Momella, Arusha National Park, Tanzania. © Deogratias Lihepanyama.