Review of: "Algal bloom monitoring in Koka Reservoir, Ethiopia: Application of satellite remote sensing algorithms"

Premysl Stych[1]

1 Charles University Prague

Potential competing interests: No potential competing interests to declare.

The study “Algal bloom monitoring in Koka Reservoir, Ethiopia: Application of satellite remote sensing algorithms” deals with an evaluation of remote sensing data (Landsat 8 and Sentinel-2) using two indices (FAI and NDCI) for monitoring the algal blooms. The main objective of this study is to explore two satellite-derived indices, which involved cross-validation of the FAI derived from Sentinel-2 MSI and Landsat-8 OLI imagery, as well as investigating the link between the FAI and NDCI using Sentinel-2 MSI to demonstrate temporal and spatial heterogeneity of optical characteristics in the Koka Reservoir.

The paper has a strong application focus, however from a research point of view, it doesn’t present any innovative methodology as well as any scientifical contribution. The methods are based on an assessment of the similarity/relationship between indices. It is not enough for relevant scientifical contribution.

My comments:
1) Why this study? What are research questions? What should be proved by this study? What is added value/innovation of this study?
2) The purpose of this study is not clear from the Introduction part/overview of the studies, because it is not defined any methodology gap to be searched.
3) A well prepared in-situ data are missed in this study, so results are not well validated. It is a serious negative of this study.
4) The methodological part is very weak, it is not clear all the method steps.
5) Results and Discussion have a strong descriptive character, Conclusions does not bring any novelty and they are not supported enough by evidences.
6) The paper seems to be an interesting example of application of remote sensing data in the Koka Reservoir. It could be demonstrated as “example” in journals/bulletins for end-users. Managers and decisionmakers can obtain information about options and perspectives of free remote sensing data in the monitoring of water quality. I would recommend to submit the paper in an end-users orineted journal with focus on demontration of the application of remote sensing data.