

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

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Potential competing interests: No potential competing interests to declare.

The manuscript entitled "Algal bloom monitoring in Koka Reservoir, Ethiopia: Application of satellite remote sensing algorithms" by Eritrea et al., makes an approach on if the FAI derived from satellite images could be used for monitoring the algal blooms in the Koka Reservoir. The conclusions are not supported enough by evidences. The main shortcomings include as:

- (1) Why does the manuscript choose two-satellites data? What is the advantage for this selection? Why does the strong relationship between FAIs derived from two different satellites indicate the FAI could be used for monitoring the algal blooms in the Koka Reservoir? What is the theory? I think that the strong correlation between the FAI and on-site monitored data (chlorophyll a) could testify that the FAI can be used for that purpose. But the manuscript doesn't provide these evidences. Fig. 5b should be changed from "NDCI vs Chl-a" to "FAI vs Chl-a" since the FAI is your keynote. However, it should be expected this correlation is very poor, not supporting the conclusion "the FAI could be used for monitoring the algal blooms in the Koka Reservoir".
- (2) Why is the correlation for the period Mid May to Nov better than other periods (Jan-Apr and Apr 29 - May 4) (Fig. 2)?
- (3) Discussion should be reorganized since its most part still present the results. While in the Discussion it should make description on the reasons for results, touch on why the FAI could be used for monitoring the algal blooms, and discuss on the implications for monitoring the algal blooms associated with other inland waters.
- (4) Conclusions should be briefer since its present one is too verbose.
- (5) Present paragraphs are too long and each paragraph should be divided into two or three short ones.
- (6) The quality of the English is poor and its English should be reedited by a person whose native language is English:

Koka Reservoir should be the Koka Reservoir

The main objective is to explore two ---- indices, here indices should be "applications of indices in monitoring the algal blooms.

In the second paragraph of the text, "Several chlorophyll ... waterbodies, algorithms, satellite imagery". How can they be mutually compared between algorithms and imagery?

In the third paragraph of the text, "The FAI is calculated by subtracting a reflectance value in the near-infrared (NIR)...

from the baseline reflectance” should be “The FAI is calculated by subtracting the baseline reflectance... from a reflectance value in the near-infrared (NIR)” ??

In the last paragraph of the text, “the global degradation of water” should be “the global degradation of water quality”

(7) References should be reedited according to the form: Authors, Date. Title. Journal, volume, pages.