

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 presents a study on the usefulness of satellite images such as sentinel-2 and landsat-8 for monitoring algal growths. It employs two indices known to be effective which are FAI and NDCI.

In my opinion, the manuscript is well written and presented, and is suitable for journal publication.

Some suggestions are proposed, but the lack of line numbering makes it difficult to indicate the exact place in the text.

On page 3, second paragraph, it should be indicated that in GEE the level 2 images are already atmospherically corrected, so it is not necessary to do this operation; the text seems to indicate that they do not have this correction.

To conclude the introduction, it should be indicated which are the original contributions of this article, since the use of FAI and NDCI indices for algae monitoring has been used in about 140 publications in recent years, and not being many, they are similar works, so this work seems to be a practical application of the procedure to this particular reservoir.

Regarding the results, the authors should present some values that would help to describe the characteristics of the aquatic environment during the study period, such as water transparency and turbidity. It is known that in turbid waters, the satellite image corresponds only to the first centimeters of the water, as the lack of transparency hides the rest of the water mass.

On the other hand, it would be necessary to create a water mask that would perform measurements only in places without the presence of emergent or subsurface macrophytes that give abnormal reflectivity values in relation to those of phytoplankton. It would therefore be necessary that the area not corresponding to free water without bottom influence or aquatic vegetation be masked beforehand.

In some places in the document NDCL appears which should probably be NDCI.

Finally, the bibliographic references should be presented in the style used by the journal. In its current presentation it is a mixture of different styles, especially the journal titles: some are abbreviated, others are not, some use capital letters, others do not. Some references are incomplete and data are missing.