

## ***Interactive comment on “Analysis of Land surface Temperature change based on MODIS data, Case study: Inner Delta of Niger” by Abdramane Dembélé et al.***

### **Anonymous Referee #1**

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This paper analyses spatial and temporal patterns of LST over the Nile region using the MODIS LST product. In my opinion this article is not suitable for publication for several reasons:

- 1) The English is very poor. There are a lot of sentences that are not correctly constructed. There are a lot of words that are misused and whose meaning does not fit with the sentence where they are used. This makes reading the paper very difficult and it is very hard to fully understand the author's descriptions, discussion and conclusions. The authors should ask for a language review if they struggle with the English.
- 2) Although it is clear that the paper targets LST evolution over time, the purpose and

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relevance of the paper does not seem very clear. For instance, the authors keep referring to volcanic activity although the link between their work and the volcanic activity topic is not clear. In the conclusions they state that LST “determine volcanic areas”: this does not seem correct. Did the authors mean to say that LST values are influenced by volcanic activity, in which case this is simply an English problem?

- 3) The data used are not properly described. The authors refer to Landsat8 several times although they seem to be using MODIS data. I suggest that the authors should read some papers where the MODIS data is used so they better understand how to describe the data.

- 4) The methods are also not clearly described. For instance, why did the authors chose those 5 classes of temperature? Why do they think they are appropriate to describe the region? Are they related to vegetation distribution or climate regions? Please clearly state your motives. I did not understand the objective and conclusions of the section “The characteristic of the LST morphology”. What did the authors intended to show here?

- 5) The figures are not properly described. Colorbars should have actual values and not “high” and “low” (Fig. 3). Some figures don't have colorbars (Fig. 6).

- 6) The Conclusions section is very short. The authors should better discuss the relevance of their work to the scientific community.

- 7) Some references are not correct and are not correctly cited in the text. Please review your references (for instance, lines 29-30, but I found several problems throughout the text).

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