

## ***Interactive comment on “Estimation of flooded area in the Bahr El-Jebel basin using remote sensing techniques” by M. A. H. Shamseddin et al.***

**M. A. H. Shamseddin et al.**

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Estimation of flooded area in the Bahr El-Jebel basin using remote sensing techniques

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1. The authors are grateful to the anonymous referee #1. We appreciate his comments which will be considered in the final version of this paper. In regards to his specific comment on Figure (1), we do agree with him that our study area is not clear enough, thus a new Figure was prepared using GIS technique and would be available in the final version. Figures (4.1&2), and Figure (4.1) show an example of the study’s resulted images using unsupervised classification techniques, and in terms of its agreement with the rare traditional available data , the study used the matrix calculation accuracy

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(71%). In regards to figure (4.2), we might need to highlight a little bit in the study's introduction some related terms (i.e. Wetland, flood area etc).

2. The author reply for the anonymous referee #2: The authors also would like to thank him for his interesting comments. The objective of the study was intended mainly to estimate Bahr El-jebel flooded area using remote sensing technique. This objective was investigated by the confusions available in terms of the Bahr El-jebel flooded/swamp area estimation, as stated in the study. However, the study findings agree with the previous results of Sutcliffe & Park (1999), which were made using a hydrological water balance model; moreover, there was no enough ground truth data. However, using the available ground truth data the study's accuracy was 71%. The study provided good references that might provide more details about the study area (i.e. Sutcliffe and Park, 1999). In regards to the model parameters, the authors will consider the detailed description of the parameters that used in the final version.

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 3, 1851, 2006.

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