Letter to the editor with the second revised version.

Dear editor,

Thank you for your patience, and for pointing out some of the deficiencies still present in the paper.

In the 3nd version of our paper we have incorporated all your comments.

1. First of all, we have revised the title, in agreement with your suggestion. Also, in the text we have tuned down our claims, pointing out that we present a comparison from which hard conclusions cannot be drawn, but that the comparison indicates that NDII could <u>potentially</u> become an interesting proxy for the soil moisture storage, provided that the catchment has a distinct moisture stress period. These disclaimers have been included in the abstract (lines 14, 23, 30), the discussion (lines 483-484, 516, 527-528) and in the conclusions (lines 543, 549).

2. We apologize that the Supplement was not uploaded. This led to unnecessary irritation. We have now included the supplement hopefully without trouble.

3. We have made sure that all equations are properly numbered, and referred to. Some equations were not discussed in the text, which we have corrected. We still think that it helps the reading when all model equations are in one Table 2. But because of the switch from portrait to landscape within the document, the pdf breaks up the document and puts them into separate files. This is why Table 2 is in file HESS-2015-304\_R5.3.pdf. I am sorry, but I don't know how to do this otherwise. In the final paper Table 2 will be included in the Methods section, close to where the equations are discussed.

4. We have renumbered the Tables, so that they appear sequentially in the text.

5. Section 2.2 has been reorganised so that the sequence is more logical.

6. The argumentation for the study set-up and the semi-distributed lumped model has been moved to the Introduction, as suggested by the editor, so that this justification is not scattered over different sections (now in lines 120-131). Section 3.2 now only presents the model framework and not its justification.

7. Finally several small corrections have been made

We hope that these revision satisfy the editor and we thank you again for your attention to our work.

Sincerely, on behalf of the co-authors, Hubert Savenije