

ESJ Manuscript Evaluation Form 2018

This form is designed to summarize the manuscript review that you have completed and to ensure that you have considered all appropriate criteria in your review report. Your review should provide a clear statement, to the authors and editors, of the modifications necessary before the paper can be published or the specific reasons for rejection.

Please respond within the appointed time so that we can give the authors timely responses and feedback.

NOTE: ESJ promotes review procedure based on scientific validity and technical quality of the paper. Do not estimate the novelty or the potential impact of the paper. You are also not required to do proofreading of the paper. It could be recommend as part of the revision. ***ESJ editorial office would like to express its special gratitude for your time and efforts. Our editorial team is a substantial reason that stands ESJ out from the crowd!***

Date Manuscript Received: 1 st February 2018	Date Manuscript Review Submitted: 23 February 2018
Manuscript Title: CONTRIBUTION OF TRMM 3B42 DATA TO IMPROVE KNOWLEDGE ON RAINFALL IN THE KAYANGA/GEBA RIVER BASIN (REPUBLIC OF GUINEA, SENEGAL AND GUINEA-BISSAU)	
ESJ Manuscript Number: 0269/18	

Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with an explanation for each point rating.

<i>Questions</i>	<i>Rating Result</i> [Poor] 1-5 [Excellent]
1. The title is clear and it is adequate to the content of the article.	5
<i>The paper is about improving knowledge through production of better dataset for a long term observation of rainfall in a transboundary water body.</i>	
2. The abstract clearly presents objects, methods and results.	4
<i>The abstract could be improved in particular why such study is important and what is the significance and originality of the paper.</i>	
3. There are grammatical errors and spelling mistakes in this article.	3
<i>Substantive language corrections might be needed. Made few edits on the paper but there are more to do in editing that I could accommodate in my review</i>	

4. The study methods are explained clearly.	3
<i>Including a flow diagram that presents the logic and integration of data might be useful for the readers.</i>	
5. The body of the paper is clear and does not contain errors.	4
<i>A compilation of the formulas in one table and explaining of why each is used will help</i>	
6. The conclusions or summary are accurate and supported by the content.	3
<i>I will recommend a discussion section as the methods may have some challenges that the authors may need to share. Short time frame of TRMM data (1997-); the loose density of stations and their interoperability because of many temporal gaps that are not happening the same time etc. More details on discussions points in general comments below.</i>	
7. The references are comprehensive and according to the APA citation style. <i>(All the sources in the list of references are cited in the content and vice versa)</i>	5
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Overall Recommendation (mark an X with your recommendation) :

Accepted, no revision needed	
Accepted, minor revisions needed	X
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

Review paper # 69-02-18

This paper is a great contribution on filling data gaps by combining ground data with satellite products to derived a more comprehensive data set that can be used for many climate related analysis and actions. Watershed are the right scale for action when managing natural resources all depending to the main water sources. Many human activities depend on these fragile water bodies and that deserve higher scientific attention to assess their dynamics and implications to human and ecosystems vulnerability. The ambition to work on transboundary water bodies is another level of challenges as countries always have various management approaches and hence data collection never the same from one side to another of the border. The paper has clear objectives and the methods used very adequate.

The analysis based on a combination of ground data with the renowned Tropical Rainfall Measuring Mission (TRMM) is aimed at improving data both spatially and temporally of precipitation across the Tropics. This product is known to provide accurate information on precipitation features such as intensity, distribution. The temporal sampling is adequate for the tropics rapidly changing rain profiles with a 3-hourly (3B42) products. Further validation using densified station with reduce unexplained residues of the correlation with ground measured precipitations and that is what the authors did.

The 3B42 used in this study, are perhaps best suited for event-based applications, such as estimates of rain rates and rainfall coverage TRMM products BUT they are only available since 1997 which is arguably too short a period for inference of long-term climate trends. TRMM products. While these aspects could be included in a discussion paragraph before the conclusions, the ambition to address geographical gaps in assessing the health of water catchment in remote areas is a great merit of the manuscript. The biggest challenge for this paper is to work on transboundary water bodies. At the age of collaborative work and sustainability these transboundary resources are very important asset to create transformation across borders.

I will therefore recommend a high consideration for publishing this paper after the following:

- Make it clearer the methods used and connections between method sections: Sketching a flow diagram will be very useful
- Introduce a discussion section to discuss the usefulness of interpolated data and the short time series aspects
- Deeply revise language. I did some edits but here is more to do on the language that I could accommodate in this review.
- Address several of the comments I made in different sections of the paper attached to this review letter

Good luck!!!

Comments and Suggestions to the Editors Only:

With these revisions I really see a value for this manuscript. They are Francophones and unfortunately publishing in English requires some level of language sophistications and they will need some editorial help. Revert back to me if there is anything I can do.

PS. I have nested many comments in the body text if that is a way to convey my nitty-gritty edits that they may include.

