Review of: "Revitalizing Key Conditions and Integrated Watershed Management Approach to Sustain Water Availability and Agriculture in Semi-Arid Regions"

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Potential competing interests: No potential competing interests to declare.

This article is about an important topic. Water resources are interest of several different types of uses; water services, agriculture, fisheries, hydro power and recreation among others. For securing adequate quantity and quality of water for each type, planning of use of water resources has to be organized and equitable for all users. This task needs systematic approaches, and this article introduces Integrated Watershed Management (IWSM) very thoroughly.

In the beginning of the article the problem, especially in areas of water scarcity – like in SSA – is described clearly. It is very clear for reader that the author understands this area very well. Especially the article is dealing with problems in agriculture, and this is also presented comprehensibly. Next, the author is presenting the IWSM approach shortly, however so that the reader gets a good understanding of the topic. The section “The constraints of IWSM approach” is a good part for understanding the limitations of the method.

In results of the paper the author gives four key conditions that need focus in the approach. These are good and well justified points and shows again that the author has got a good understanding of the subject.

Some considerations for improving the article:

- I would have liked to read shortly what is the IWSM approach like compared to other similar approaches, like Integrated Water Resources Management (IWRM) and Total Water Management (TWM). These approaches are developed to manage water resources, especially when there are conflicts of interest in water and land use.
- This article is a review of IWSM method in cases of water scarcity, and it gives a good view for advantages in use of it. However, I was missing a specific case and a view how IWSM could be used in it. This would give a real scientific perspective to the article.
- I also wanted better consideration how all types of water use in a watershed could be regarded using the IWSM approach. For example, how pollution of residential areas and industry can be managed when considering water need for agriculture downstream of a watershed.
- I agree with some other referees with the use of references in this article; some references are used very much, and some references are missing in the list. Please check the bibliography.