

Interactive comment on “Sustainable management of river oases along the Tarim River in North-Western China under conditions of climate change” by C. Rumbaur et al.

Anonymous Referee #1

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Referee Report of the paper with the title “Sustainable management of river oases along the Tarim River in North-Western China under conditions of climate change”

This is a stimulating paper which discusses in some detail the pros and cons of sustainable management of the Tarim River basin. The paper is interesting at least for Europeans as it brings out fascinating and challenging results. However, as the paper stands now I cannot recommend it for publication. It has to undergo a major revision. I have to following four points of criticism:

1. Goal and type of the paper

(i) For me it is really not clear what the goal of this paper is.

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(1) Is the goal of the paper to bring some new interesting results of sustainable management of the Tarim river basin?

(2) Is the goal of the paper to give an overall and quite scientific challenging project description, what the 37 researchers have done?

(3) Is the goal of the paper to show some new scientific results in economic, ecological and other perspectives? This is all not clear. In the introduction the authors should clearly and precisely write what they want to achieve with this paper, what knowledge they want to transport and what they want to tell the reader. This has to be done in any case because as I said it is not clear at all.

(ii) Also it is not clear what is new in this paper. Is the sustainable management of the Tarim river basin in China new? Are the scientific results new or what is new? Also this is not clear and should be clarified.

(1) Also it should be clarified what type of paper this is. Is it a research report? Is it a description of what has been done by this group? Is it a scientific paper with a clear-cut scientific question and new scientific results? Also this should be clarified.

(iii) The final point: This paper has 37 authors. It should be clarified in what kind of order the authors are brought? Why is Rumbaur No 1, Thevs No 2 and R. You No 37? There is no alphabetical or other order. The authors should at least explain this.

2. Structure of the paper

The paper needs a much clearer structure. After the introduction, where the authors should clearly say what the goal of the paper is, what new is and what type of paper it is, it should follow a chapter called “project description” with explanations what precisely this research team did, what the project goal was and what they achieved. So that an interested reader sees on three to four pages what was the goal of the paper and what has been achieved and for example if there have been conflicting goals between economic and ecological matters etc..

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3. Scientific purposes

The scientific purposes are quite often hidden and it is not clear what the scientific purposes of this paper are. There are a lot of empirical results presented but in a lot of cases it is not clear whether the authors fulfil the *ceteris paribus* conditions, if they undertake a trend analysis or just present correlations. Also if the authors want that the paper has a stronger scientific background, they should clearly formulate two to four hypotheses and then later on empirically test them, but at least undertake an attempt to fulfil the *ceteris paribus* conditions. This means after the project description the author should formulate the hypotheses and empirically test them. If this is not the intention, they can make a longer and more detailed project description. After that, the authors should then bring out some policy and then they should discuss the major results and give some policy recommendations. The authors could end for example - and this would be fascinating and highly stimulating - how difficult this project was with respect to the interdisciplinary work, what helped here, what were obstacles and how one could overcome them?

4. Overall evaluation

To summarize let me clearly say this is in principle a fascinating piece of research but as it stands now it is a mixture of a project description and of some scientific results and it is unclear what the goal of the paper is. This should be clarified. Then I can recommend this paper for publication.

Interactive comment on Earth Syst. Dynam. Discuss., 5, 1221, 2014.