

Interactive comment on “Groundwater-surface water interactions, vegetation dependencies and implications for water resources management in the semi-arid Hailiutu River catchment, China – A synthesis” by Y. Zhou et al.

Y. Zhou et al.

y.zhou@unesco-ihe.org

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Comments from referee No.2: T. Kanyerere (Referee) Received and published: 3 April 2013

a) General comments The paper is of a good quality and should be encouraged to get published. However, the method section should not contain results. Results should be discussed with reference to work by other scholars in the field being studied. Conclu-

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sion section should i) highlight key issues in line with the objectives of the paper and ii) suggest the way forward in the field of GW-SW interaction without containing reference or literature review as is the case in the present paper. Proofreading will improve the academic literacy in the paper.

Response: we appreciated suggestions and will revise the paper accordingly: (1) we will rewrite the method section as we have responded to the similar comment made by Referee No.1. (2) we will rewrite the conclusion and move references to the discussion sections. (3) we will check thoroughly the English language.

b) Specific comments 1. Introduction Line 22-23 ... to formulate: ... policy should change to: ... to provide information that would inform the basis for improved best practice (It is tricky to believe that a government will change its policy based on results from one paper; it might happen but not that explicit. Thus, try to avoid such statements).

Response: suggestion is taken and will be revised accordingly.

Lines-24-32: These lines seem to contain results and conclusion of the study. Maybe results and conclusion should not be presented in the introduction. Reflect on these observations.

Response: In this paragraph we introduced the objectives of the study and highlighted research methods used for each objective, and indicated importance of the research conclusions. We will improve this paragraph.

Technical terms: Ecohydrological cross-section (lines 28-29 of the introduction section) versus ecohydrogeological cross-section (Section 4.2) are used interchangeably. Check these terms and stick to the one that you really mean because they are not the same in the GW-SW interaction studies.

Response: we will use ecohydrogeological cross-section consistently through the manuscript.

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2. Materials and methods Use past tense in this section to report what happened as you did in section 2.3, 2.4 and 2.5 Sections 2.1 and 2.2 you are presenting results and trying to discuss results with literature review. Maybe results presentation and their associated discussions should be left the relevant section.

Response: we will use the past tense consistently. We will move the results to the relevant sections followed, accordingly.

3. GW_SW interaction Results have been presented but not discussed. Try to refer to the work of other scholars on the same subject and compare with your results and state the compliance of your results to others as well as to the concept and principles of GW-SW interaction being investigated. The exaggerated words can be minimized and also should be supported with values (statistics). For example, ... clearly indicate that ..., clear indication of ..., temperature is much higher than ... What you can do is to provide statistics then you can qualitatively state which one is higher or lower ...

Response: we will add discussions of results in comparison with other studies. We will also rephrase "exaggerated" words.

4. Vegetation dependency on GW Results in section 4.1 need to be discussed in context of other scholars work and concepts and principles being studied before a conclusion is reached. Key values/ statistics need to accompany key qualitative variables of shallow, high, very high Reduced giving rushed and definitive conclusion such as the cross-section clearly shows ... then in section 4.3 line 20 it is clear that salix Uses ... (the science of uncertainty in experimental design research studies exit).

Response: we will add discussions of results in comparison with other studies. We will provide statistics and avoid definitive conclusion.

5. Comparison of water use by different plants Provide more scholarly discussion of the results to enable you to draw a conclusion that informs the best practice in the water resources management. Key quantitative values (statistics) need to accompany key

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qualitative variables of ... it is very important, Poplar tree is much larger than ...; willow tree is very low;(provide statistics to go with such words); it is remarkable to see....

Response: we will add discussions of results in comparison with other studies. We will provide statistics.

6. Implications for water resources management Provide more scholarly discussion of the results to enable you to i) draw a conclusion that informs the best practice in the water resources management and ii) suggest a change in the current practice in line with the concepts and principles under discussion/investigation. More references are needed in section 6 to enrich the discussion of the results.

Response: we will search for more references and add discussions of results in comparison with other studies.

7. Conclusion Highlight key issues following the objectives of the paper such as: a) GW-SW interaction (catchment and sub-catchment); b) Vegetation dependency on groundwater; c) Comparison of water use by different plants; d) Implications for water resources management. No references should be encouraged in the conclusion section if possible.

Response: we will rewrite the conclusion accordingly. We will move references to result sections, and highlight key issues in the sequence of order as recommended.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 13251, 2012.

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