

Interactive comment on “Shallow groundwater in sub-Saharan Africa: neglected opportunity for sustainable intensification of small-scale agriculture?” by J. Gowing et al.

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We are grateful for the comments on our paper, which we will take into account in strengthening our arguments and clarifying some specific issues in our paper. We summarise our responses to some key common comments here.

The reviewers' comments in relation to the literature reviews were not consistent, recommending separately more concise and more extensive reviews, and we would appreciate editorial advice on this. We recognise that significant work has previously been carried out and published on groundwater in Africa, and we have covered the aspects most relevant to our own focus in our literature review. We appreciate the further suggestions made, but we feel that our existing coverage of the literature is sufficient

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and appropriate for a journal paper that is not intended to be a review paper.

Both reviewers mentioned the use of other case study sites. We consider that the arguments presented in our paper are properly evidenced from a detailed assessment at one site, supported by published research at other sites within our literature review. We have referenced recent publications indicating the need for localised field studies, and we hope that this paper will encourage wider discussion of the issues, enable subsequent research to investigate other sites, and help in advocating more official recognition of the potential use of shallow groundwater resources.

A particularly novelty in the paper, recognised by both reviewers, is the use of community-based monitoring to support resource management, which is a focus that we continue to pursue and develop further. There is increasing interest in the published literature of the value of alternative sources of knowledge and information, and we have aimed in this paper to add a new perspective by presenting an argument for its necessary role specifically in the context of the use of shallow groundwater for small-scale agricultural use, which we consider is a useful and novel addition to debates in the published literature.

In view of the fact that there has previously been valuable discussion of groundwater potential in SSA within the pages of HESS, but that this work has not identified the potential of the shallow groundwater resource, we believe that our results to-date merit publication in HESS. The paper was shared with Knowledge Broker (Sean Furey) for NERC-DFID research programme 'Unlocking the Potential of Groundwater for the Poor', who commended its publication as follows: "Great paper! There is useful stuff here for the discussions and work on-going about drilling and pumps, but I'm going to use it as an excuse to engage with the agricultural networks, like FARA, as well. I'll keep an eye on the paper for when it goes live. I've posted the provisional details here: <http://upgro.org/publications-papers/peer-reviewed-journal-papers-open-access/>. And in the next couple of days I'll work up a short news item for the website and to circulate more widely for when the paper is definitively published."

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