Reviewer’s report

Title: Improvement in health and empowerment of families as a result of watershed management in a tribal area in India - A qualitative study

Version: 1 Date: 4 April 2013

Reviewer: Eric Friedman

Reviewer’s report:

Before I get to some suggested revisions, my congratulations to you on a job well done! This was a compelling study on the importance of water management, and I hope that it does lead to much more attention to and support for watershed management.

Major Compulsory Revisions

[None.]

Minor Essential Revisions

1. Authors should review use of commas carefully. I also noticed one other typo, p. 4, last sentence of background section: “perception of tribal population, on public health….” should be “perception of tribal populations on public health” (note besides no comma, plural for “populations”).

Discretionary Revisions

2. The authors might consider explaining the term “watershed management” in the abstract itself. For the lay reader unfamiliar with watershed management, such an explanation would be helpful, given that the explanation of the term, including agriculture and self-help groups, goes well beyond water alone.

3. The results of watershed management demonstrated in this study are powerful indeed. This leads me to wonder, are all watershed management programs the same? Can we expect similar results as in the WM and PWM villages wherever such programs are in place? Or are there particular features of the watershed management programs that made them especially effective in these villages? And less effective watershed management programs might not lead to the same results. The authors might want to address this issue, and explain any features that may have led to the particular effectiveness of WM in the WM and PWM villages. For example, it does not seem obvious to someone not familiar with WM that self-help groups would always be part of watershed management. Are they always part of WM? How are they connected? I found, for example, it noteworthy that even the NWM village tried to form self-help groups but failed (Table 5), further raising in my mind the question of the link between WM and self-help groups. (Page 16, which discusses self-help groups, could be a place to discuss.)
4. For readers not familiar with India, might just want to quickly note when you refer to Maharashtra state where in India that is.

5. On p. 5, when you refer to water-related diseases being common, could you give a few examples of which are common ones?

6. I would strongly encourage researchers to review results to ensure that they justify the assertion on p. 7 under the “Water centric development section” that “water scarcity is the major problem in the area” (and a similar assertion in the conclusion). This may very well be the case. However, the FGD guide in Table 3 focuses on the water from the beginning. This initial focus on water, as opposed to a more open-ended question about major problems in the area or causes of ill health, may have biased responses towards the emphasis as water scarcity as the main problem. Again, reading over the many implications of water scarcity, this could well be an accurate statement – it would be very easy to believe – but the structure of the questions leads me to suggest that authors take one more look to ensure that this statement is justified.

7. Two questions on the sanitation/toilet section (p. 12-13). One, who is the “them” in “According to them, if they get assured [a] supply of water…”? Everyone? Only people from NWM village? Two, what did people in WM village say about use of toilets? WM is leading to increased use in PWM, raising this question about the WM village.

8. While it is possible to figure out the link between WM and education and it comes out elsewhere (particularly girls spending less time gathering water), it would be useful to clarify the connection between education and WM in the beginning of the section on education (p. 13). You might also consider (unless you feel sufficiently explained elsewhere) a sentence in this section on the link between income and WM.

9. In education section, you mention that WM and PWM participants felt education was important (p. 13). Did NWM villagers not feel the same way?

10. I think the discussion section may be a bit easier to follow if you add section headings on the particular link between WM and health and what you are talking about in that part of the discussion section. For example, sub-dividing into sections such as migration, water-borne illnesses, education, income, sanitation, nutritional status, alcoholism, and a few others. I don’t think this should take much reorganization, mostly just adding headings.

11. With respect to the end of the discussion section: “As far as the potential of watershed management in tribal areas is concerned, we suggest developing an area specific health policy that has an integrated water, health, agriculture and socio-economic management approach.” — Could you please clarify what you mean by “area specific” (and this should probably by hyphenated)? And are there any other recommendations you would like to provide about what is needed to make WM a reality in more places? That would be useful. Also, do you have any recommendations on this policy, or how it should be developed (e.g., with
participation of populations in these areas)?

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests.