

***Interactive comment on “A decision analysis framework for stakeholder involvement and learning in groundwater management” by T. P. Karjalainen et al.***

**Anonymous Referee #1**

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The main objective of this paper is “to evaluate the usefulness of the MCDA process in sustainable land-use and groundwater management” using an aquifer in Finland as a case study. Generally speaking, this topic is relevant for water managers and policy makers. However, I do have the following concerns: 1) The presentation of the results should be more balanced, highlighting both the strengths and weaknesses of the proposed approach. There are many statements in these two sections that are subjective, “personal”, observations. On page 8763, for instance, the authors claim that “the approach was considered the most suitable...” but we do not know anything about the alternative approaches. The only approach described in section three and

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implemented in section four deals with MAVT/DIA. It is very unclear why the authors conclude that MAVT/DIA is superior to other methods that are available to promote stakeholders' involvement and learning. Another example on the same page: “most of the respondents considered personal learning to have occurred”. But this could have happened with the other methods! To what extent this is specific to the proposed approach? The authors should provide comparative evidences to support such statements. 2) I was wondering to what extent was MAVT suitable for this exercise? More specifically, were the compensation and mutual independence assumptions discussed with the stakeholders? What were their reactions and their understanding of the consequences of these two assumptions? 3) There is a fairly large body of scientific literature on the usefulness of MCA techniques for public investment projects (see e.g. Mladineo, EJOR 1992). The authors should discuss the specificities associated with water/natural resources management and check whether their conclusions are consistent with similar experiences in the broader context of public investments.

This paper addresses an important issue in water resources management. Major modifications are needed before this paper can be accepted for publication. The introduction, analysis and conclusions must be rewritten in order to better stress the contribution of this manuscript and to have a more balanced presentation of the results.

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