

Interactive comment on “Assessing domestic water use habits for more effective water awareness campaigns during drought periods: a case study in Alicante, Eastern Spain” by H. March et al.

Anonymous Referee #1

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The authors are touching a relevant topic: domestic water use habits and how to better address those in awareness campaigns for reducing water consumption during periods of water shortage. Also the household survey that has been conducted in 2011 in Alicante bears some interesting results that could inform awareness campaigns that aim at reducing water consumption. Nevertheless, I have a general concern if the paper is of significant for NHESS as in my view and in the current state it does not represent a substantial contribution to the understanding and management of natural hazards. Therefore I would recommend to consider a different journal where the

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scope includes either the socio-economic dimension of water use and consumption or sustainability communication strategies, e.g. HESS, Sustainability Science etc. Or otherwise to make more clear how the problem addressed and the results of the study relate to the scope of NHESS. If the editor though decides that the article fits the scope of NHESS I have some recommendations for the revisions: Research questions and objective: Please define the research question(s) you address in your paper and that you are able to and do answer on basis of the results of the survey. Were there any hypotheses that lead the research design and can they be verified or falsified on basis of the results? The research objective is stated as “to provide more accurate knowledge of existing behaviors in water use by urban households in Alicante”. You could be more precise here: what do you mean by accurate knowledge, what exactly do you want to investigate? Which knowledge is needed to improve water awareness campaigns? And how does this contribute to the scientific debate on water consumption/water conservation? Central concepts: Please be more precise and consistent about what you focus on and define the central terms in the introduction. Is it “water use habits” or “water use behaviour” that you have investigated and what does this cover? Do the awareness campaigns that you relate to focus on “water conservation”, “water consumption” or “water saving habits”? Systematic assessment of water use habits: Based on the definition of central terms I would recommend a systematic procedure for assessing the water use habits that includes defining central aspects that need to be considered, thresholds that could be defined for evaluating the results of the survey and criteria that lead to recommendations for improving water awareness campaigns. So far it remains unclear why the aspects that have been surveyed and presented in the results are relevant for assessing awareness campaigns. Also it is not transparent how you come to your conclusion e.g. on page 6874 that the assessed habits “indicate an already existing prudent behaviour” or on page 6873 that “habits did not appear overly extravagant in terms of consumption”. What defines extravagant or prudent use and how does this quantify in consumption? Efficient introduction and problem setting in sections 1-4: You could be more efficient when setting the scene

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and only consider those aspects relevant for the reader to understand the problem setting, previous research and case study specifications in order to evaluate the results presented. E.g. the details on urbanisation process of the case study area seem not relevant for understanding or discussing the results. The background on awareness campaigns in Alicante is quite detailed but in my view not needed at that length in order to understand the survey design or interpretation of results. Please check section 1 to 4 for potential of reducing the text to the essentially needed and rather elaborate more on the interpretation of results and conclusions drawn from this. Methods used: I miss a critical evaluation of the method used. A general problem with surveys that try to evaluate behaviour (or habits) is that they only deliver information on stated – and not actual - behaviour and when focussing on environmental issues there might be a risk of receiving socially expected answers. In how far this has been considered in the design of the survey and in the interpretation of results? Further it would be interesting to know your selection criteria for the municipalities and if the sample taken reflects the population (e.g. ration of Spanish and foreign participants, distribution of age, income, average household size etc.). Again I miss a critical evaluation of potential biases in the discussion, for example due to high ration of retired people and women among the respondents. Results, discussion, conclusions: In my view you could be more detailed and concise in the interpretation and discussion of your results and the conclusions you draw from this discussion for improving awareness campaign. You stay behind the potential of the material presented. How does the stated behaviour relate to other studies? How do they translate into water consumption? It would be very interesting and the paper would really benefit if you could estimate the households' water consumption in litre/capita/day based on average figures, e.g. for litre/per minute showering or per watering gardens with x qm lawn. This could corroborate your conclusions of the households being “not overly extravagant in terms of consumption” and detail it. Based on a translation into consumption in litres you could identify areas where future campaigns should focus on. I believe you miss a lot of detailed hints to water saving possibilities by not going into detail. E.g. you state that campaigns often recommend

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to shower instead of taking a bath which would relate to the infrastructure and habits. Nevertheless your survey shows that 75% respondents do have a bath tub and around 200 respondents seem to use it on a regular basis. This sound to me that there still could be some potential for water reduction here. Another aspect you only elaborate very little is the usage of water saving devices. The interesting question is why only so few households have water saving devices installed. A more detailed analysis might give hints to this: e.g. what characterises those households etc. These are only two examples where I expect that you would gain more insights from the material through some more statistical analysis. In the discussion I would be interested how your results from Alicante relate to other studies and could be transferred or not to other regions. What is new and interesting for the scientific debate on water consumption and improving water awareness campaigns. In your recommendations for awareness campaigns you remain rather general and not focussed enough. What is the main take home message? Summarizing my rather critical comments: I would recommend to revise the article focussing the material, results and discussion on the research question(s) and the main message still to be defined and to submit it to a different journal that focusses on socio-economic dimension of water management or on sustainability communication. Then you capitalize the valuable empirical material gathered in your survey and contribute to the scientific debate on improving water conservation on household level in a more effective way.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 6859, 2014.

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