

Interactive comment on “Forecast-based financing: an approach for catalyzing humanitarian action based on extreme weather and climate forecasts” by E. Coughlan de Perez et al.

Anonymous Referee #2

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The paper proposes a framework for the evaluation of forecast based preventive measures for disaster mitigation under consideration of economic aspects. The costs and expected benefits of such preventive measures are assessed and in this way guidance is provided for decision making. The focus of the paper is on the introduction of the conceptual framework. The case of flooding in England and Wales is used to demonstrate its application. Pilot studies from Togo and Uganda are outlined which will be used to provide further insight into the feasibility of setting up standard operation procedures for effective flood disaster risk mitigation.

C3002

Reading the paper is rewarding and provides new insight to a topic which has not received much attention in research yet, but is, without doubt, of relevance for efficient disaster risk reduction. The paper is well structured and very well written. The main contribution of the paper is the conceptual outline of the forecast based financing mechanisms which are coupled to risk based operation procedures. I very much like the approach to strengthen the link of forecast information to preventive action. However, I see several aspects which need to be addressed to make the paper stronger of which the major ones are the following:

1. Unfortunately Figure 1 which is central for the understanding of the concept within the demonstration case of flooding in England and Wales is not represented correctly in the manuscript. Hence, the explanations given in the text are not fully comprehensible. Anyway, I recommend enriching the text with some concrete examples of potential measures (conveniently taken from Figure 1). Otherwise the paper remains a rather theoretical tract which leaves many questions open of how to practically implement and operate the system proposed
2. This is also important as there are many regional differences and event dependent particularities to be expected in operational applications. Many factors that are involved in your scheme will vary strongly among events and regions: e. g. forecast uncertainty as a function of forecast lead-time, detection of flood hazard and warning lead-time and hence the portfolio of feasible actions. The sensitivities of these variations to the outcomes of your system should be evaluated in order to get some feeling for the robustness of the approach.
3. The pilots from Togo and Uganda provide a vision of how you think standard operation procedures for system application in Africa could be derived using for instance ‘serious games’. I understand that you still don’t have more concrete results to report. It could be interesting to contrast these application cases to the introductory example taken from England and Wales. Also here, a discussion about the sensitivity of event dependent variations would be of interest.

C3003

4. The example cited from cigarette industry does not fit very well into the flow of your paper. I recommend replacing it with another more convenient example from disaster risk reduction

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 3193, 2014.

C3004