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2, C2735–C2736, 2014

Interactive Comment

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.

S. Hallegatte

shallegatte@worldbank.org

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I enjoyed reading the paper, which discussed an important issue with potentially large benefits for affected population.

I think it makes the point very clearly.

I have a few comments:

- At first, I did not understand the definition of your "percent of actions that were worth-

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while". I find it confusing because of one warning, you will have many actions (e.g., evacuation plus pre-positioning of supplies) and your phrasing suggests that some of them will be worthwhile and others won't. In fact, you're thinking about a repeated exercise and the R is the average over many events. I would change the label and use the classical words (correct alarm ratio).

- In Eq (2) and later, you introduce a "n", assuming that a and b are number of cases, while you referred to them as probabilities before. I would use the probability always, and remove the n.
- I think the text would benefit from more example of actions, to make it more concrete (it is just bringing some of the examples from Fig 1 to the text it's especially needed because the journal has the figure at the end and not in the text...).
- If your budget is too low, you assume that you do less of everything. I was curious whether in practice we use this strategy, or if we focus on the cases with higher probabilities. (e.g., you do nothing is the probability if lower than 50%, but you do everything (like without budget constraint) when the probability is higher than 50%). How could we compare the efficiency of the two approaches?
- Finally, you're looking at your budget constraint like if the realized losses will be equal to the expected losses. But there is a lot of variance. I'm wondering whether you do not want to say instead that you want your budget to be sufficient 90% of the years, and use the variance to calculate how much precautionary investments you want to make (you can also use a more sophisticated approach in which you're careful at the beginning of the year when many things could happen, and because less careful when the year's end approaches it's clearly not optimal in general, but it is the best approach if you have annual budget without the option of "borrowing" on next-year budget.).

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

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