

Interactive comment on “Enhancing resilience to coastal flooding from severe storms in the USA: International lessons” by Darren M. Lumbroso et al.

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This is a multi-author comment by: C Balk, S Chatterjee, Y Chen, DV Chng, D Colbus, H Davidson, A Harden, J Hilburg, E Jung, C Lim, J Lin, B Marconi, B Moland, J Norris, C Phillips, L Scherr, A Stevenson, J Varamo, C Villar Leeman, A Villegas, J Xu, S Yan, Y Yurong, J Yu, Z Zhou

General comments:

Great study; very beneficial. This paper could be used to help project managers or government branches developing climate-related disaster plans. While many countries have established disaster response plans, educating and simulating these plans could

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help make them more successful and highlight vulnerable communities. Many of the issues brought up in the article are issues that people and governments are aware of; however, these precautionary measures can help make plans much more thorough, regardless of existing government policy.

This helps highlight that even developed countries struggle to fully accommodate all the complexities associated with a localized event. Comparing several different approaches between developed and developing countries helps to expand knowledge of potential impacts. For example, Bangladesh has very comprehensive shelters; it is interesting that space for livestock is included in the emergency shelters! While certain plans are more successful and thorough than others, the comparisons help to highlight areas of weakness and strength. We liked how you intrinsically linked preparedness to risk exposure.

Broadly, throughout the paper, the concept of trust is described as if it can be directly measured - how? Trust between communities and different levels of the government is crucial in dealing with flooding hazards. But it is rather difficult to measure the level of trust. What mechanisms can be utilized to effectively measure it? At what levels do you regard it as sufficient to motivate actions against a natural hazard? In addition, the paper mentions the use of social capital in increasing resilience. It seems that social trust is part of social capital. Does measuring trust relate to measuring social capital?

The paper could move more quickly past introductory concepts. Focusing on the methodology and results of study would serve the paper well, in order to make it more concise. The discussion section seems to be the main focus of the paper. We suggest considering that this section could be the "Results" section, and the "Discussion" section would further discuss the results.

We recommend to reduce the backstory in favour of more content (pg 11, line 14). The authors do not seem to be considering the difference in the governmental structures of these three drastically different countries, and do not acknowledge the difficulties in

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replicating the same level of response. The political climate of these countries (Cuba, Bangladesh) should be addressed to examine reasons their policies and management are successful or how they are not successful.

The discussion would benefit from more emphasis on socioeconomic implications in the United States. Just because this worked in Cuba and Bangladesh, does not mean it will work in the U.S. These countries are very different from the U.S. in terms of development and culture. The article begs the question, how is American social isolation contributing to the vulnerability and lack of resilience, and how are Cuba and Bangladesh succeeding in this department. Why is the U.S. lacking?

Specific comments:

Table 2 from page 27: Please list the reasons why you excluded certain papers in greater detail. Why did you not attempt to include a wider range of papers in their reviews?

It would be helpful to include some of the same charts for the USA. For example with Figure 5, we have this data for Cuba, what are these data for the USA?

For people not familiar with social capital, a definition might be helpful.

The catalyst of hurricanes is mentioned in the response and reaction in Cuba and Bangladesh. Why did the United States not see a catalyzing effect after major hurricanes such as Katrina?

The focus on the economic budget of the nations could be further clarified. Are you claiming that because Cuba and Bangladesh have a smaller budget and therefore are more creative with how to allocate and prepare for events; is the US not able to be as creative?

The paper seems focused on the functions of a centralized government that has extensive influence. Could you reflect on how these learnings could be applied to a different situation?

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Have you looked into technology based strategies? Can the U.S. use technology in their emergency evacuation plans? Similarly, it would be of interest to compare the current communication tools of the nations.

Technical corrections:

Pg 15, Line 1, "hurricane" should be capitalized

Pg 13, Line 26, "This all act" should be "These all act...";

Figure 1, despite definitions given, "adsorption" is left undefined (this definition is necessary)

Page 14, line 8: "The turnover of emergency management staff is such that the evacuation zones are often forgotten (FEMA, 2013)." - Why?

Page 6, Line 6-7, "In this review, we aimed to establish what measures have contributed towards increasing community' resilience in Bangladesh and Cuba?" This should not be a question.

Page 7, Line 5, there should be a space in the heading and number.

Page 14, Line 20 & Page 15, Line 22 - These citations should be standardized. No need for the word "see."

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