Reviewer's report

Title: Household's Perception of Climate Change and Human Health Risks: A community perspective

Version: 2 Date: 22 September 2011

Reviewer: Roberto DeBono

Reviewer's report:

22 September 2011
Reviewer: Roberto DeBono
Re: 'Household's Perception of Climate Change and Human Health Risks: A community perspective'. Md. Aminul Haque, Shelby Suzanne Yamamoto, Ahmad Azam Malik and Rainer Sauerborn

Environmental Health
Research

General note

This is a good paper on an important topic. The findings of this study will be very useful for policymakers applying mitigation and adaptation measures to counteract climate change in Bangladesh, given that the communities under study have been found to be already aware of climate change and its overall negative effects on their livelihood. In light of the findings of this study, climate change mitigation and adaptation measures are likely to be met with support from these two Bangladeshi communities and possibly also the other communities. The paper is clearly written and easily readable.

1. Is the question posed by the authors new and well defined?

The research question is clear and well-defined. As highlighted by the authors, this seems to be the first study on public perceptions of climate change and human health risks in Bangladesh.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

The methods are very appropriate. 450 households is a good number for a descriptive cross-sectional survey of this kind. In addition, the semi-structured questionnaires and the mixed methodology (i.e. including focus groups and interviews) are a good source of qualitative information. The probability proportionate sampling is understandable given the feasibility for the study.

It would be informative for the reader to know the methods by which members of the focus group were selected and some information on their background in addition to gender, given that there were twelve focus groups and that one would expect this to have been an important source of information. Were members of
the focus group similar demographically to participants in the household survey?

3. Are the data sound and well controlled?

The data is sound. With regards to sample representation of the national population, I would also like to know:

- The response rate of the survey
- The representation of the sample, not only in terms of gender, but also in terms of education and occupation.

Furthermore, in the results section on p. 7, it is written that “31.1% of the male respondents were farmers and 41.6% of the female respondents were homemakers”. Table 1 shows otherwise – these two percentages are given from the total participant population.

It is informative to know that the mean household income of 50 per cent of the respondents was BDT4438 per month. Table 1 states that these are the lower 50% of respondents. It would be good to state this in the text as well. Can I suggest also giving the median household income for the whole respondent population? In this case, I would prefer the median to the mean, to remove the effect of any outliers that there may have been.

On page 8 it is written that 80.2 per cent of respondents “reported that rainfall had drastically decreased…” Table 2 shows that when asked about the present intensity of rainfall during the rainy season in comparison to the last five to ten years, the majority of respondents answered low not very low. Therefore I would remove the word ‘drastically’ from the text to ‘reported that rainfall had decreased’.

In the results section on page 10, it is written that “fewer floods were also predicted in the future”. However, Table 7 shows that respondents perceive all hazards, except for water logging (and understandably so, given that rainfall is projected to decrease), to increase in the future. This includes flooding.

Re: Table 6, it is unclear whether the figures that are given are percentages or number of mentions. Given that the figures bear a decimal place, one deduces the figures must be percentages. However, it still unclear to me what the figures mean. For example, with regards to ‘normal cold/cough/fever’, does 85.8% under the column ‘Heat’ mean that 85.8% of respondents (n=450) attributed a change in the frequency of disease due to warmer summers and winters? Can the table be restructured in a way that it easier to interpret? If I may suggest, maybe including the question that was given to respondents in the table caption may help.

Re: Table 8, “more than 20 different sources or indications were used by the participants to identify perceived changes in heat and cold”. Am I right to understand that these sources were stated by the respondents without prompting? If such is the case, what was ‘n’ for each variable in Table 8? For example, 98.0% of how many respondents stated they perceived changes in heat from not being able to go outside of house due to extreme heat?

4. Does the manuscript adhere to the relevant standards for reporting and data
deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
The discussion and conclusion are adequately supported by the data. If I may suggest, in the introduction I would make a mention that perceptions on climate change and health have already been studied in other countries including US and Malta, and Canada if I’m not wrong. It is only mentioned in the introduction that studies on perception were carried out among students, educators and scientists.

Given that the study focuses strongly on the perceptions of climate change and its human health effects I would also suggest referencing the study on public perceptions of climate change and human health in Malta published in the European Journal of Public Health, December 2010. One of the main findings of this study was that if climate change measures are framed in the context of health, the public will probably be more willing to support such policy. In my opinion, this is relevant in the context of Bangladesh, given that the livelihood of people in Bangladeshi communities is being affected and given that the people perceive these health effects as being climate change related. The citation of the study is given hereunder:


6. Do the title and abstract accurately convey what has been found?
The title and abstract convey what has been found accurately and concisely.

7. Is the writing acceptable?
I suggest that the text is proof read and checked mainly for spelling and sentence construction but also for tense. Some examples:

Page 3: “community people can describe how the every specific aspect of their life…”. One may need to change one or two words in this sentence.

Page 5: 'coastal' is written as “costal”

Page 10: “they become ill, lose their crops and suffer other losses that they attribute it as an extreme heat…”. This may also need a change in some words.

Discussion section: it is disputable whether the past tenses or present tenses should be used throughout the text of this section.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
No competing interests.