

## These are the lessons we must learn - and apply - in tsunami's wake

*From Prof Debarati Guha-Sapir.*

Sir, The article "Half of tsunami drugs to be destroyed" (December 27) describes a lesson we have learnt from Armenia earthquake studies in 1988, but are clearly unable to apply.

There are some other lessons as well - to be learnt and, with some luck, applied. The first involves tsunami aid, which was generous bordering on overwhelming. Within weeks, Medecins Sans Frontieres declared it did not need any more funds for tsunami, reminding donors of crises unfolding elsewhere that desperately did. The Sri Lanka government actually requested the public to cease donations since all requirements were met (report, June 22).<sup>1</sup>

Too much emergency money encourages reckless spending and can be as paralyzing as too little. For the tsunami, the amounts were so staggering that only expensive projects could absorb them quickly, - setting the stage for tsunami early warning systems, not the most cost-effective option in poor countries.

Our study in Tamil Nadu, India, shows that 14 per cent heard about the upcoming disaster and took protective action. But 86 per cent remained out of the loop. The majority of these poor, coastal inhabitants did not have mobile phones. Only a few had radios. Most, in fact, barely know how to read or write. Priority should clearly be given to appropriate forms of local communication and community preparedness. Second, infectious diseases after disasters were yet again confirmed as a non-issue. Many will recall the Cassandra-like declarations predicting sweeping outbreaks of malaria, dengue and cholera. There were none, not even small ones.

Our study shows that there was no cholera in Aceh for at least 10 years, partly because water temperatures will not support *Vibrio cholera*. Malaria is endemic some kilometres inland, where the tsunami did not arrive. Whatever was spent on emergency epidemic control, it was practically useless, having more to do with (mis)perceptions than with real evidence. Third, donors gave much priority to psychosocial interventions generally involving counselling and children's picture-drawing services. How far are these really useful or cost-effective in Asian cultures?

Frankly, I have yet to see credible evidence that these actions do any measurable good. Not by some bureaucratic indicators, such as persons counselled or drawing exhibitions organised. But rather if the ultimate outcome was positive compared to another action (eg, restarting disrupted vaccination campaigns).

Finally, women were at higher risk in this tsunami. Overall, deaths among women were 40 per cent higher than men in Tamil Nadu and infant girls died at twice the rate of boys. Deaths were higher among those who could not swim and most of these were women. We should find out exactly why little girls died in droves and teach women how to swim as development-oriented preparedness.

Regrettably, choices have to be made. Reducing the vulnerability of women in natural disasters is a priority. Infinitely more than multi-country, multilateral, multi-whatever early-warning systems for an event whose return period is so long that nobody actually mentions it. The return period for the death of a little girl is in one year's time, probably in the next tropical storm and that is guaranteed.

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