



Date:	Thu, 15 Jul 2004 07:12:43 -0700 (PDT)
From:	"Zhonghao Shou" <zhonghao_shou@yahoo.com>  View Contact Details
Subject:	 More Comments for TOPIC 2 by Zhonghao Shou 27146
To:	"John Twigg"
CC:	jchu@

Dear John,

I would like to offer more my comment to TOPIC 2

In "The role of the Inter-Agency Task Force on Disaster Reduction and the UN/ISDR Secretariat", you wrote "iv. Coordinate the development of databases on natural disasters, disaster impacts and risk reduction, particularly in terms of the aforementioned objectives and action thereon, and publish periodic analyses of these data." It is a very good idea, but there is a serious problem of data. For example, earthquake data are various. For the same earthquake, different counties offer different data. Table 1 reveals various data for the same Turkmenistan earthquake on Dec. 6, 2000. The smallest magnitude was 5.8, while the largest was 7.4. Moreover, even the US Geological Survey itself changed data a lot. For instance, it changed the magnitude of 5.8Mb in Rank A to 5.3Mb in Rank A for the same Iran- Turkmenistan border earthquake on Dec. 19, 1999 by elapsing. Such large error not only gives earthquake prediction a big impediment to narrow windows, but also makes data analysis incomparable with each other.

The reason for why earthquake data have so large error is due to not standardizing. It is recognized that any measurement contains two kinds of error: systematic and random, and that the former can not be adjusted by a system itself. Therefore, it is necessary to set up a standard to unify earthquake data like the 1 kg Mass standard in Paris to unify mass data. Since no earthquake can work as the 1 kg Mass to compare itself with others, I suggest using mines, whose power and hypocenters can be designed exactly, to unify

earthquake data. Earthquake data producers can claim error ranks after checking systematic errors. Otherwise, any analysis is incomparable, and is not very reliable. I also suggest adopting Joule as the unit of magnitude, and making a formula between it and those old units such as Mw, Mb, ML, etc. that are difficult to study by other sciences like physics, chemistry, and so on.

I highly admire your, "in order to avoid duplication and streamline the use of scarce resources" because of my experience of using meteorological satellite data to predict earthquakes successfully. To do more works, I suggest UN setting up a large, free, electric library to collect various data, including satellite images, earthquakes, volcanoes, floods, droughts, tornados, typhoons, temperatures, winds, rains, snows, and so on, so scientists and people will be easier to study hazards with those data, and those studies will bring big benefits to the society.

Sincerely,

User Name: Zhonghao Shou.
Earthquake Prediction Center