

Data for “earthquake scenario damage” assessment

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Earthquakes are among the most damaging natural phenomena *vis-à-vis* mankind; when occurring in a densely populated territory, they can prove devastating. They are sudden and not predictable in the present scientific context, in the sense that scientists are not yet in the position of warning efficiently the exposed populations that an event is being prepared in the short term.

Progress will obviously come from a better understanding of the physical processes at earthquake source, as well as a finer knowledge of wave propagation and of interaction of waves with mankind artifacts. This calls for continuous efforts by scientists/engineers to develop new observations and interpretation models. Data, of course, are required and ways and means have already been designed by the WDS “parent” organization.

Another approach should be followed : in order, for the authorities in-charge, to be really efficient, they should be provided with the necessary data and models to estimate the potential damage caused by an earthquake occurring in a specific environment (= “scenario earthquakes”). Scientists/engineers should provide the authorities in-charge with “scenario damage”, either on a routine scheme for the authorities to develop prevention measures, or in an emergency mode for the authorities to apply adapted rescue measures in case of occurrence of a damaging event. For that, models and corresponding codes must be worked out, tested and improved; naturally, data is required. Most often, data needed shows specific features : extremely bulky, accumulated and stored locally, eventually restricted in its use by the owners if not simply classified. WDS should address the problems raised by this data : some sort of a charter to open up the data sets to (authorized) users, specific arrangements to allow accessing and sorting out the useful parts of the data sets, techniques for decimating/averaging the detailed local data, ...
