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Nonlinearities in cost assessment of the natural hazards and some technological disasters mitigation techniques

Boyko Ranguelov

National Institute of Geophysics, Geodesy and Geography - BAS, Seismology, Sofia, Bulgaria (branguelov@gmail.com, +359 2 971 30 05)

General and specific mitigation measures are developed in a certain domain and cost assessed using principal methodology based on the cost-benefit analysis. The gross value of each proposed measure is estimated on the basis of several criteria – research and investigations, development and implementation and practical application. The variables are many and very different that's why to analyze and quantify the value of a single measure is strongly dependent of the country (region) and the hazard (NATECH) to be developed and applied. In any case the cost variations are in the wide range of several orders, which means that the strong non linearity is well presented. For example: seismic microzonation (as a strong tool to mitigate the seismic influence of a strong earthquake to a certain vulnerable areas – cities, villages and/or industrial facilities) can change its value from several thousand up to several millions EUR. Several similar cases related to different mitigating measures about different natural hazards triggered technological disasters are developed and assessed. The results obtained show variances in the values of the preventive and protective measures. The values vary in orders of several times about the different natural risks and related technological disasters.