



Civil Protection issues in urban management of natural hazards

Maria Bostenaru (1,2), Sever Georgescu (3), Agostino Goretti (4), and Michael Markus (5)

(1) Foundation ERGOROM '99, Bucharest, Romania, (2) "Ion Mincu" University of Architecture and Urbanism, (3) INCERC Bucharest, Romania, (4) Italian Civil Protection, Rome, Italy, (5) Karlsruhe Institute of Technology, Germany

This paper reviews different approaches of collaboration with the Civil Protection across Europe, from the experience of the author. The first contact came working as a research assistant at the Universität Karlsruhe (TH), Germany, in frame of the SFB (Collaborative Research Centre) 461 "Strong earthquakes", which featured a collaboration Germany-Romania. The subproject C7, where involved, about Novel Rescue technologies was a collaboration between the Institute for Technology and Management in Construction, formerly Institute for Construction Management and Machinery, and the Romanian Civil Protection. The scientific results of the project were to be later implemented by the Civil Protection. In course of the work contacts were done also through the work of the research associate, sub-project leader, in the THW (German Technical Assistance). Later on work continued at the same institute but in frame of the Research Training Network "Natural Disasters" when also contacts with the Romanian representative to the European Earthquake Engineering Association, were established.

Working further in the same field of Natural Disasters, especially seismic risk, brought the author to the ROSE School in Pavia, Italy, researches of which closely collaborate with the EUCENTRE, founded, among other institutions, by the Italian Civil Protection. Particularly the collaboration with specialists from the Italian Civil Protection resulted in several initiatives, such as:

- paper contribution to a special issue edited by the author,
- organisation of EGU sessions on the topic of "Natural Hazards' Impact on Urban Areas and Infrastructure",
- invited review of papers,
- attendance of short course coordinated at the ROSE School on post-earthquake safety assessment,
- elaboration of scientific projects submitted for funding on the topic of earthquake hazard impact at various geographic scales,
- further publication collaborations are in work,
- it is intended to improve the collaboration between urban planning specialists and specialists in vulnerability studies at the Civil Protection in order to enhance the role of urban planning in disaster mitigation,
- collaboration of the Italian Civil Protection with Romania with the National Institute for Building Research, the scientific director and EAEE representative, within the STEP project, on post-earthquake safety assessment, in l'Aquila, before and after the earthquake.

This collaboration continued with invitation to the Global Earthquake Model Outreach Meeting of the Scientific Director, supported by the Italian Civil Protection as public participant, and to which we hope to be able to contribute, given the background in socio-economic aspects of the author (research topics in Karlsruhe) and the possibilities of dissemination of results on risks.

More recently a training school in the framework of the COST action TU0801 "Semantic enrichment of 3D city models for sustainable urban development" on 3D for natural disaster management brought the author in contact with similar authorities from the Netherlands. More even, she has information first hand about the training held by the Hungarian Civil Protection with school children, where a further collaboration is envisaged.

The lessons learned from these experiences are important because recently the author was invited to collaborate with the Centre for Emergency Architecture of the "Ion Mincu" University of Architecture and Urbanism. Emergency interventions are the field where collaboration with the Civil protection is required. In frame of the collaboration she is co-teaching a course on "Risks", from both natural and anthropic hazards. Especially the inclusion of the lessons from l'Aquila was discussed with the specialists mentioned above, but also the way the risk mapping can be done. Thus the lessons from scientific collaboration can be included in the teaching process.