A BRIEF REPORT ON THE "FORM-OSE POST-GRADUATE TRAINING SCHOOL 2006" – MULTIRISK: CONCEPTS TO APPROACH MULTIPLE HAZARDS AND RISKS

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The "FORM-OSE POST GRADUATE TRAINING SCHOOL 2006" that was held in Bonn, Germany (September 24-30th), addressed young master or PhD students, who are interested in the field of natural hazards.

The organizational committee brought together important geographers from Germany (Thomas Glade and Kirsten von Elverfeldt, University of Bonn), The Netherlands (Theo van Asch and Jean-Philippe Malet, University of Utrecht) and France (Olivier Maquaire, University Louis Pasteur, Strasbourg). The course was organized under the auspices of University of Bonn, CERG, UNU-EHS, ZENEB, DKKV and IAG.

The objectives of the training school were: to gather process and modeling knowledge of a variety of hazardous processes such as earthquakes, landslides (including rock falls and debris flows), snow avalanches, slush flows and flooding; to provide and discuss multi-hazard and –risk concepts and to enhance understanding of the importance of interdisciplinary collaboration especially within the context of multiple risk assessment of natural hazards.

The attendees constituted a very heterogeneous group of 25 persons coming from Romania (5), Portugal (5), Italy (4), Poland (2), Indonesia (1), Lebanon (1), Malta (1), New Zeeland (1), Slovenia (1), Spain (1), Switzerland (1), Turkey (1) and UK (1). Their PhD and master theses were in the field of natural hazards, mainly in landslide, flood and tsunami hazards.

The training school was structured in two parts: three days of courses and two days of field trips. The courses were held by academic professors as well as by practitioners in the field of natural hazard assessment and management. As regarding the courses, new concepts and approaches in multiple hazard and risk studies were presented by outstanding specialists in their field. On the basis of the theoretical framework that was presented in the first day, the next 2 days of lectures focused on presenting procedures and methods to address natural hazards and risks endangering a specific region or locality. Thus, the lectures aimed to link the principles of sustainable risk management strategies to practical issues such as dynamic run out modeling, the evaluation of direct and indirect costs related to landslide activity, integrated flood risk modeling and remote sensing applications in geohazard reconnaissance, monitoring and disaster management.

Field trips were thematic. Field trip I introduced us into the field of seismology at the Earthquake Research Station Bensberg (photo 1). The attendees gained basic knowledge regarding the typology of earthquakes, their measurement (by direct looking at the instruments) and hazard analysis directly from well-known practitioners in the field.

Photo 1. Seismic measurements

Photo 2. Flood discharge model, Cologne City Hall

Field trip II aimed to present the way in which local authorities address flood management at the Flood Protection Agency Cologne (photo 2). Taking into account the fact the city of Cologne was the scene for severe flood events in the recent past, the local authorities started an integrated procedure to mitigate risk. They developed a vulnerability map that was the basis for flood protection planning. They developed both structural (10 km aluminum fences that are quickly built in case of floods) and non-structural (raise population awareness regarding floods by presentation of flood risk using flyers, flood models, movies, presentations in public places).

Photo 3. Structural mitigation for floods

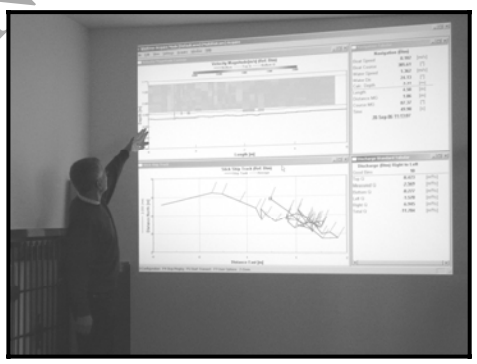

Photo 4. In-situ ADPC discharge measurements

Field trip III raised awareness regarding flood management form the point of view of the German Federal Institute of Hydrology. They deal with water level and discharge forecasting of the river Rhine using modern tools (WAVOS forecasting system and ADPC discharge measurements – photo 4).

Field trip IV focused on management of landslide hazard in the vineyards along the Rhine Valley. The UNESCO vineyard patrimony is well preserved and protected from landslides and rock falls by fences built on the slope.

Overall, the training school was a great success because the attendees gained theoretical knowledge and analytical capability to perform hazard and risk analyses, as well as information on practical strategies to implement in their work.