

Working Group Discussion on Risk Assessment

Summary
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The risk assessment group discussed three topics:

- (1) Status of hazard assessment
- (2) Performance of building codes
- (3) Necessity of risk modeling tools

The conclusions were as follows:

ad (1):

Hazard assessment has well progressed in the last decade. Problems are:

- Neotectonics, paleoseismology, and source physics are not generally included into the hazard assessment process.
- Site effects in the form of microzoning are too often not included into hazard assessment.
- Near fault precautions in hazard maps are usually lacking
- Low probability/high impact events are generally underrated.

ad (2):

Recent earthquakes show that building codes perform well. Even if ground motion exceeds the design spectra codes provide good protection. The main problem with codes are:

- Application of codes has to be enforced - this is not always the case!
- A large number of old buildings in Europe is not protected by codes.
- A large number of non-engineered buildings will remain at risk.

ad (3):

Whether Europe needs a risk modeling tool comparable to HAZUS remained a controversial issue. Whereas part of the discussion group stressed its necessity in order to anticipate risk on a European scale with a compatible technology others gave higher priority to the local risk assessment process. The latter one should follow good practice as developed by the RADIUS program. Key issues in risk assessment should be to increase

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awareness and to understand risk assessment as an integrated part of a risk management strategy.