

**Urban Planning - Seismic Risk Reduction at
Greveva - Kozani (Northern Greece)**

Lekkas, E., Lozios, S., Fountoulis, I., Kranis, H. & Adamopoulou, E.

Department of Geology, University of Athens, GR 157
84 ATHENS, Greece

A destructive earthquake (M=6.6 R) hit the region around Greveva and Kozani on May 13, 1995. Mainly small rural communities were stricken, in some of which the damage was total. That is, in 3 villages more than 70% of the buildings collapsed, in 5 villages the collapsed constructions accounted for more than 50% and in 8 villages for more than 30%. In addition, there was considerable damage to 20 more villages. The geologic and geotechnical survey carried out soon after the earthquake showed that the principal causes of the destruction were (i) the occurrence of a NE-SW trending seismic fault zone, (ii) the occurrence of surficial geologic formations with low values of geotechnical properties and (iii) the instability of formations at areas of high topographic gradient and the occurrence of landslides. The combination of all the above led to a characteristic distribution of the damage, both in the pleistoseismal area in general and inside the villages themselves. For the immediate reconstruction of the area, the following proposals were made: (a) relocation of 8 villages to safer location, or incorporation with others and (b) the development of construction only at the secure parts of the villages or at the flanks of them. These interventions aim at the long-term reduction of the seismic risk in the area.