



Mine Subsidence Investigations for Urban Planning Purposes: Kilimli (Zonguldak) Case

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Coal mining has played a important role in forming the economic development of countries such as Turkey, the United Kingdom (UK) etc.. Although vital to the economic development for the countries, there are negative impacts of mining due to the safety posed by the collapse of subsurface voids. City planners need a quantitative measure of possibility of mine subsidence occurring in such sites where are located over subsurface cavities for urban planning. Integrated techniques were developed and applied for the analysis of ground subsidence hazards by abandoned and existing coal mines in several countries using different techniques. We have focused on investigating the coal mine subsidence by using geophysical studies to explore possible subsidence in Kilimli (Zonguldak) area for urban planning purposes. Main porpose is both geophysical imaging and charecterization of material. For this pourpose, seismic (MASW) method was applied to the project area. By using geophysical techniques, safety boundaries of subsidence are determined and mapped.