



Urban Soil Contamination Sites in Hazardous Areas: Community Actions

A. M. Cruz (1,2), and N. Okada (2)

(1) Emergency Planning and Administration Program, Department of Public Administration, University of North Texas, Denton, Texas, USA, (2) Center for Disaster Reduction Systems, Disaster Prevention Research Institute, Kyoto University, Uji Campus, Kyoto, Japan
(anamaria@z05.mbox.media.kyoto-u.ac.jp / Fax: +81 774-384636 / Tel.: +81 774-384637)

Natural hazards (e.g., floods, earthquakes, tsunamis) can exacerbate soil contamination threats by exposing hazardous chemicals, relocating them, spreading them, or by making them air borne or contaminating groundwater. It is estimated that in Japan there are as many as 928,000 sites that need to be investigated for possible soil contamination; more than 100 of these sites are located in Nagoya (Aichi Prefecture). If this threat is coupled with the high natural hazard risk and high population density in this region, it is clear that the threat of secondary human health and environmental effects resulting from dispersion of these contaminants during a natural disaster exists. In this study we analyze the distribution of soil contamination sites in Nagoya, Japan, versus natural hazard risk (e.g., risk of earthquakes, flooding, and landslide) and determine if there are areas that require special attention because of their high potential to cause human health impacts and environmental damage. Through interviews and a survey instrument applied to residents and government officials in selected areas the authors investigate risk perception, and prevention and preparedness measures taken for potential earthquake, flood and tsunami triggered releases of contaminants in their neighborhoods.