Landslide hazard in Roman Urban Area

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Geomorphological evolution processes have an influence not only on natural territory features but also on urban areas as physical elements of the territory, that indeed are becoming more and more present and permeate the territory itself. Moreover their uncontrolled expansion is often not correctly framed into the knowledge of the already happened catastrophical events and of the potential ones. In this way they act negatively both on the vulnerability (increasing the number and the value of the elements at risk) and on the hazard (creating situations of physical unbalance with works, diggings and slopes cutting) going, as a final result, to increase the risk on the same territory. It appears fundamental therefore, to support any territorial analysis and decision, the reconstruction of the frame of the events already existing in the territory independently from the state of activity of the phenomena, beginning from the historical analysis of the available information. A comparison of such distribution with the characterizing physical or anthropic elements of the territory, should be able to support a correct decision process both aimed to future urban planning and above all to the mitigation of existing risk for persons and things.

This paper shows the progress of the Geological Survey of Italy in the analysis of the territory of the Municipality of Rome, whose landslides distribution was recently studied (Amanti et alii, 2008). In this case the existing information (integrated with new one coming from institutional sources files, such as the Fire department or Railroads of Italy) are compared with the most recent geolithological data and with topographic data, to evaluate a preliminary landslide susceptibility. The obtained results give information on the distribution of the lithologies more frequently subject to failures in the urban area of Roma.