ASSESSMENT OF EATHQUAKE HAZARD AND RISK IN SOUTH AMERICA

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The quantitative assessment of earthquake hazards in South America has improved significaltly over the past 25 years. The term hazard is used here to mean the physical phenomena associated with the occurrence of earthquake: ground motion, surface faulting, liquefaction, landsliding, etc. Maximun intensity maps for all of South America are now avilable, and probabilistic ground motion maps are regionas in character, and, in general, do not take into account the shaking associated with local surficial material (material to depths of several hundred meters). This local shaking (site response) associated with local sirficial material is particularly important because of the dramatic influence of site response on the distribution of damage resulting from an earthquake. A number of methods are expensive. Othe, less expensive, more generalizad techniques provide at least a guide to areas of severe site response.

Up to the present time, very little has been done to asses seismic risk (loss), either on a regional or a local basis, although techniques exist to provide at least a firstorder approximation of future earthquake losses (risks) in any area. Earthquake risk studies provide a powerful tool for the mitigation of earthquake disasters