

CONSEQUENCES OF EARTHQUAKES AND EARTHQUAKE INSURANCE

by

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Summary

Rising values, growing investments and populations in terms of number and density, as well as the increasing number of elements at risk which are actually exposed or which represent critical installations because of particular risks associated with them, put an increasing demand on qualified scientific assessments of the consequences of earthquakes. Until now, practically only the physical damage has been considered and not indirect damage or what we shall call consequential loss. These losses very often weigh heavier than direct physical damage; their effect on the society and national economy can be profound and lasting. This paper presents an introduction to assessment technology and insurance issues.

Introduction

As there is practically no special literature quantifying consequential loss caused by earthquakes, we shall treat some important aspects here. In view of the many parameters which must be considered we must, however, limit ourselves to a general discussion of indirect loss and damage, and the respective parameters .

It is the author's opinion that an assessment of the consequences of earthquakes must allow for probabilistic aspects at all stages in order to put risk assessment, risk mitigation, and risk management on an economic basis. An assessment of the economic consequences of earthquakes must therefore consider probability distributions of earthquake magnitude or intensity of the area under study as well as those related to direct and indirect damage and loss levels.

It must be noted that the same conditions apply to insurance because a modern professional handling of exposure assessment, etc. does not depend on who is shouldering the