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1970年云南通海7.8级地震烈度震亡比调查分析(PDF)

Title: Relation between ratio of earthquake-caused death and seismic intensity of the M_S 7.8 Tonghai, Yunnan earthquake in 1970

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摘要： 首先系统收集整理了通海地震灾区地震当年县区、公社、大队、小队各级行政单元的人口数量、震亡人数和所处烈度等级；然后计算各行政单元人员震亡比，得到了不同行政单元烈度震亡比矩阵，分析了不同行政单元震亡数、震亡比的空间分布特征；最后用回归分析方法研究了烈度震亡比关系，建立了Logist烈度震亡比模型。结果表明，通海地震烈度震亡比具有典型的非线性增长特征，所建烈度震亡比矩阵对云南农村和乡镇地区仍具有实用意义。

Abstract: Firstly we collected the data of the population,caused death,and seismic intensity of the M_S 7.8 Tonghai earthquake-stricken area which includes 4 administrative levels such as county(or district),people's commune,production brigade and production team.Then we deduced the matrixes which describes the relation between the earthquake-caused death ratio and the seismic intensity at different level of administrative units and analyzed the spatial distribution characteristics of the earthquake-caused death number and death ratio in the administrative units.Finally the Logist model depicting the relation between the earthquake-caused death ratio and the seismic intensity was built up through regression analysis.It is found that the earthquake-caused death ratio

features a typical nonlinear growth with the seismic intensity and the matrix is practical for the estimation of the earthquake casualties in the villages and towns in Yunnan in future.

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