

FLOODS DISASTER GRADE'S CLASSIFICATION BY GRAY CLUSTERING METHOD

Yaning Chen (1), Zhihui Liu (2), Siquan Yang (3)

(1) Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

chenyaning@ms.xjb.ac.cn

(2) Department of Geography, Xinjiang University

lzh@xju.edu.cn or liu@ihw.baug.ethz.ch

In this paper, based on calculating the degree of association between the reference sequence U_0 and the comparison sequence U_i of evaluation quotas of natural disaster, the model of Grey association for evaluation of natural disaster is established and is applied to the disastrous degree evaluation of Xinjiang "96.7" floods. By using the model, the disastrous grade belonging of some regions in the Xinjiang "96.7" floods and the sequence of disastrous grade are made out. The results show: using the model of Grey association for evaluation of natural disaster not only can avoid the arbitrariness of artificial judgment, but also can be accord with the facts well. Because the degree of association is a scientific measurement of associativity among things or factors, the model of Grey association is a practical way to evaluate the disastrous condition of natural disaster.