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## **AHP AND FAHP DECISION MAKING TECHNIQUES WITH APPLICATION TO SELECTION OF DISASTER STORAGE LOCATION IN DENIZLI**

### **Abstract:**

Earthquakes which happened in the world caused financial and emotional damages and these damages are closely associated with development level of a country. As a developing country, Turkey have lots of provinces which are situated in first-degree seismic zone. By virtue of this case in the last century there were 193 devastating earthquakes endangered Turkey with respect to economical. In 1999 in Golcuk, more recently in Van and Simav there were massive earthquakes have been affected region and all of Turkey. After these devastating earthquakes, the emerging scene worsened with defects which dealt with aid services. Experiences were the most striking example during the distribution of basic aids about clothing, blankets, tents etc. on the grounds that suitable disaster storage location didn't selected.

Denizli province in Turkey is located in the first-degree earthquake zone. This study will propose solution suggestion in order to prevent the defects encountered partially in previous earthquakes during a possible earthquake for Denizli. The aim of the study is minimize defects after the earthquake and ensure distribution of aid material squarely to disaster victims with solution suggestion. In this research, for the disaster storage location selection, criterias will be determined with expert opinion and this storage will be used to minimize defects after the earthquake and ensure distribution of aid material squarely to disaster victims. As a method to determine aid distribution point in Denizli and help to collect aids, by considering criterias such AHP (Analytic Hierarchy Process) and FAHP (Fuzzy Analytic Hierarchy Process) multi-criteria decision making approaches will be used.

### **Keywords:**

Earthquake, Multi-Criteria Decision Making Approach, Denizli, AHP, FAHP

**JEL Classification:** Q50