



The Characteristics of the Disasters caused by Typhoons passing through the Sea Area around the Korean Peninsula

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To find out the characteristics of disasters caused by typhoons passing through the sea area around the Korean Peninsula, the typhoons are divided into two cases according to the typhoon track. WEST case and EAST case are analyzed. These include the typhoons passing through the Yellow Sea, west of the Peninsula and East Sea, east of the Peninsula without landing on the Peninsula.

FCM (Fuzzy Clustering Method) analysis was performed on typhoons affecting the Korean Peninsula from 1951 to 2006. The analysis shows that WEST case's cluster has the curved track of NE-S(Northeast to South), and EAST case's cluster has the straight track of NE-SW(Northeast to Southwest). Typhoons that pass through the Yellow Sea have little change in frequency and the weak intensity. On the other hand, the frequency and the intensity of typhoons passing through the East Sea show the increasing trend.

The characteristics of disasters by typhoons affecting the Korean Peninsula from 1973 to 2006 appear differently for each case: EAST cases caused significant damage in flooding, while WEST cases did damage in houses, ships, roads, and bridges. Rainfall amount and maximum wind speed data are analyzed in order to understand the impact of the typhoons, and the result indicates that the WEST cases are influenced by the wind, and East cases by precipitation. Therefore, Typhoon of WEST case is the type of Wind-maker typhoon (wind typhoon), and Typhoon of East case is the type of Rain-maker typhoon (rain typhoon).

The result of this study indicates that the characteristic of disasters is distinctive according to the typhoon track. If applied to establish the disaster prevention plan, this result could make a contribution to the damage reduction.