Relationship between the track and intensity of typhoon landfalling the Korean Peninsula and losses in property and life

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In this study, relationships between the death toll and amount of property damage and the track and intensity of typhoon during the period of typhoon visit to Korea were analyzed by using 19 typhoon cases from 1987 to 2005.

In case of the death toll of approximately 10 people, typhoon making landfall over the middle part of Korean peninsula through eastern coastal part of China is likely to be weak. On the contrary, the death toll of more than 100 people is linked with typhoon directly making landfall on the Korean peninsula without passing through eastern coastal part of China, keeping intensity after its genesis. It means that the death toll is closely related to full track and intensity of typhoon.

The property damage by typhoon with magnitude of 200 billion Korean Won is associated with tracks of typhoon landing at southwest coastal region or passing through the Korean strait. The property damage of more than 500 billion Korean Won by typhoon occurred in case of typhoon passing over central part of Korean peninsula or landfalling in south coastal region. The most interesting finding is to observe maximum instant wind speed in Yeosu in most cases.

In addition, relationship between typhoon central pressure and typhoon damage showed higher correlation in typhoon landfalling case than in non-landfalling case.