The Characteristics of Disaster by Track of Typhoon Affecting the Korean Peninsula

Ki-Jun Park, Suk-Hee Ahn, and Baek-Jo Kim
National Institute of Meteorological Research, Seoul, Korea (bjkim@kma.go.kr)

I. Introduction

- Recently, meteorological disasters occur frequently in Korea. Those are mainly driven by the meteorological phenomena such as heavy rain and typhoon in summer and heavy snow in winter.
- According to the recent statistics, meteorological disasters occurred by heavy rain (37%), heavy rain accompanied with the typhoon (22%), and the typhoon (15%) (*Ministry of Public Administration and Security, 2003).
- The frequency of typhoons affecting the Korean Peninsula (KP) shows a increasing trend and its intensity is getting stronger (*Park et al., 2006).
- There are a lot of studies on the typhoons landing on the KP, However, study on the typhoons passing through the Sea Area around the KP is few.
- The purpose of this study is to find out the characteristics of disasters caused by typhoons passing through the sea area around the KP.

II. Data and Methodology

- **Definition of “Typhoons affecting the KP”**
  - WEST case: The typhoon passing through the Yellow Sea, west of the Peninsula without landing on the Peninsula
  - EAST case: The typhoon passing through the East Sea, east of the Peninsula without landing on the Peninsula
- **Frequency and intensity analysis**
  - Frequency and intensity changes of the typhoons affecting the KP by using RSMC Best Track data from 1973 to 2006
- **Damage analysis**
  - Damage type of typhoons passing through the area of West and East case from 1973 to 2006
- **Cause Analysis of typhoon disasters**
  - Precipitation and Maximum wind speed data analysis for 60 Korean weather stations with KMA data
  - Precipitation: above 80 mm/day, Maximum wind speed: above 7 m/s

III. Result

- **Frequency and Intensity of typhoons**
  - Frequency changes of the Typhoons
    - Monthly variation
    - 10-year variation
  - The number of selected typhoon
    - WEST case: 13 cases
    - EAST case: 23 cases

IV. Summary

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.

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