EMS Annual Meeting Abstracts
Vol. 11, EMS2014-366, 2014
14th EMS / 10th ECAC

Spatial Distribution of Disasters by Track of Typhoons in Korea

Seung-Wook Lee, Suk-Hee Ahn, Ki-Seon Choi, Jeoung-Yun Kim, and Baek-Jo Kim
Policy research division, National Institute of Meteorological Research(NIMR), Republic of Korea (antcraft@korea.kr)

Korea belonged to the East Asia monsoon climatic area usually suffers tremendous damages and casualties in infrastructure and residential facilities due to extreme precipitation related to typhoons and Changma front. Among them, meteorological disasters due to typhoons can explain 60 percent of the total amount of damages for the recent 10 years from 2002 to 2011 (National Emergency Management Agency, 2012). Synoptic meteorological structures represent differences according to the track of typhoons, and consequently bring different distribution of precipitation, scale, and intensity of damages from region to region.Most of the previous studies analyzed the data from approximately 60 Automated Synoptic Observation System (ASOS). So, disaster data having high resolution were not provided, only provided rough quality disaster data in the past.
In this study, spatial distribution of disasters are recognized with daily precipitation data from approximately 350 ASOS and AWS for the recent 10 years (2002∼2011). To do this, spatial distribution of precipitation regarding the track of typhoons for the recent 10 years are investigated and the scale and intensity of disasters, and the extent of inundated areas are compared and analyzed. The data derived from this study could provide fundamental information for relieving damages by providing spatially classified countermeasure strategies.