

Recent abnormal snowfall in Kanto region due to the long-term change of the atmospheric and oceanic phenomena

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The Kanto region is more vulnerable to heavy snowfall than the Sea of Japan region because it receives less snowfall. In recent years, there has been some damage to public transportation, and it is necessary to predict the amount of snowfall in order to minimize the damage in the future. There is no significant difference between the annual average snowfall in the past before 1961 to 1988 and the recent before 1989 to 2018 in 1988/89. However, the recent years were more conspicuous in terms of the amount of snowfall, and the number of cases with a total of 100 cm or more at the meteorological stations in the Kanto region at eight points including Tateno increased in the recent years. Changes in storm tracks were found to be stronger over the southern and eastern seas of Japan, and the north-south temperature gradient of sea surface temperatures was also stronger at the same locations.

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