



Point precipitation observation extremes in the world and Japan

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In the discussion about the increase and decrease of the frequency of an extreme heavy precipitation, it is necessary to evaluate the rainfall extreme value record that has been observed up to now correctly. In this paper, the source and the observational data of the rainfall extreme value record in the world and Japan were revealed, and it revalued it including the reliability and the uncertainty. A lot of things with an indefinite source were included though it was brought together by WMO and NOAA/NWS in the rainfall extreme value record of the world. The case where the value in the thesis was different from the data of local agency and the case where there is a problem in the interpretation based on the content of the description of the quotation thesis were seen, and moreover, these were corrected and annotated as much as possible. Though the extreme value record including the observation of another government and municipal offices excluding the Japanese Meteorological Agency and a private company was described in various books, because data that mis-described and was uncertain that was included, that data was verified, corrected, and annotated for Japanese rainfall extreme value records.

The relationship between the period and the depth of the extreme record is interestingly close to the line accordance with regression formula which is give by exponential value 0.5. The close examination concerning the precipitation extreme value which is advanced including other meteorological elements extreme events by WMO/CCI is expected to be promoted more by showing reliability and the uncertainty shown with this paper. This study cannot directory to make an impact assessment by climate change. On the other hand, it is possible to evaluate the effect of climate change on an extreme rainfall phenomenon that becomes the index through the evaluation of the estimation approach of the rainfall potential used for the probability precipitation that plays an important role to the decision of the city planning and the embankment amount (for instance, PMP estimation approach).