Study on the Characteristics of Heatwave in Busan, Ulsan and Gimhae, South Korea in 2018 and Risk Level Prediction of Heatwave Using Ensemble Model

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In this study, we analyzed the characteristics of heatwave in Busan, Ulsan and Gimhae, South Korea in 2018. In addition, using the UM LENS and ECMWF ensemble model, the model data (2016-2017) were corrected to increase the prediction rate of the heatwave risk level and the corrected values were applied in 2018 to assess performance of risk level prediction of heatwave.

When the ensemble model data were corrected in 2016-2017, only the model values were corrected at all the points, the agreement rate between the risk level of the observations and the model increased than before the correction. Applying the corrections to the model data in 2018, the error of post-correction between the risk levels of observations and the models decreased than pre-correction at most points(Excluding Ulsan ECMWF).

Therefore, appling model data in 2018 using corrected values from 2016-2017, risk level prediction rate of heatwave increased than pre-correction. That is, it is judged that the corrected values can be applied to the risk level prediction of the heatwave in the future.