The Estimation of Cold Wave Risk Index for Flow Measurement

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Streamflow measurements are carried out on site, researchers are always exposed to accident risks. Currently, social safety accidents such as traffic and water safety accidents are being prepared with great efforts and regulations, but natural safety accidents such as heat waves and cold waves are not prepared yet.

In this study, the Cold Wave Risk Index (CWRI) was proposed through the PSR structure system to prevent safety accidents that may occur due to the cold weather in winter, and were selected detailed indicators for each factor were selected to calculate pressure, state, and response index, and the weights for each index were proposed using entropy methods.

As a result, the Gangwon Province had the highest Cold Wave Risk Index (CWRI) among 14 metropolitan cities and the Ulsan had the lowest Cold Wave Risk Index (CWRI). Based on these results, the establishment of safety plans for researchers in winter will enhance the effectiveness of prevention of safety accidents.

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