



Establishing a Drought Plan to Secure Drought Resilience

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The drought resilience is defined as the ability to return to normal conditions after a severe drought event. A community that secures drought resilience may endure drought damage and may soon be recovered. Drought planning can either positively or negatively influence communities, which, in turn, can increase or decrease their resilience. Therefore, it is necessary to produce and maintain a drought plan to secure the drought resilience of community. The 4-R framework is used for measuring drought resilience including robustness, redundancy, resourcefulness, and rapidity, the 6-component framework was developed for drought planning in Korea including monitoring, risk assessment, mitigation, response, operation and management, update. The study investigated the relationship between four features of drought resilience and six components of drought planning. 1) The robustness represents the system capacity that can resist internal and external disturbances, and is associated with risk assessment and mitigation measures. 2) The redundancy is an alternative resource to maintain the functionality of the system when interferences work, and is related to the response. 3) The resourcefulness is the ability to recognize emergencies and allocate resources, and is related to the monitoring. 4) The rapidity indicates the ability to respond quickly to emergencies, and is related to operations and management. Since it is very difficult to detect drought damage rather than other disasters, it is important to secure drought resilience and to recover quickly, without deteriorating the water related system performance of the community. Securing drought resilience through drought planning will be a solution to the uncertainty and volatility of drought caused by climate change.

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