

# The Application of Drought Early Warning Index for Regional Hydrological Circumstance Analysis

\*Chih Chao Ho<sup>1</sup>, Ta Wei Chen<sup>2</sup>

1. Construction and Disaster Prevention Research Center, Feng Chia Univ., 2. Taiwan Hsin-Chu Irrigation Association

Recently, rainfall become more unevenly both in special and temporal distribution caused by global climate change. The frequency of drought decrease from once every 17 years to once every 9 years. How to define warning signs of a drought and propose adaptive strategies is one of the key topic for water resources management. The drought can be divided into meteorological drought, agricultural drought and hydrological drought. The study tries to introduces difference Drought Early Warning Index, such as Standardized Precipitation Index, Standardized Groundwater Index, Normalized Difference Vegetation Index etc., to predict drought circumstance. The result can be a reference for development of drought early warning system.

Keywords: Standardized Precipitation Index, Standardized Groundwater Index, Normalized Difference Vegetation Index