Taiwan Climate Change Information and Knowledge Service Platform

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Because climate change risk and adaption assessments involve interdisciplinary researches, it is important to integrate the data, methodology, and the research results and share them with all researchers to speed up research progresses. To achieve this goal, Taiwan Climate Change Information and Knowledge Service Platform (TCCIKSP) is constructed, which not only provides research data but also exchanges information, knowledge and wisdom with policy makers, researchers, industries, and public to climate change adaptation. The TCCIKSP provides two major service, climate information service and climate adaptation knowledge service. The former provides the observational data, climate change projection, and analyzed information, while the later provides the knowledge shaped from the climate change risk assessments and adaptation measures.

Data collected and distributed in climate information service includes long-term and high-resolution gridded observational data and downscaled climate projection of CMIP5. Due to the complicated topography featured with narrow valleys and steep mountains, gridded climate data with resolution finer than 5km are necessary to better describe the characteristics of regional climate of Taiwan. The 5km-meshed gridded observational data dated back to 1959 include surface daily/monthly averaged/maximum/minimum temperature and precipitation. The 5km-meshed regional climate projection data for Taiwan were calculated by applying statistical and dynamical downscaling to CMIP5 climate projection data. Furthermore, risk assessments and adaption measures in cross/inter/transdisciplinary were conducted and investigated, respectively, to be the base of climate adaptation knowledge service. TCCIKSP is expected to facilitate data management and to resolve barriers more effectively and efficiently among platform users, leading to wise climate change adaptions.