

Impact of Climate Change on Water Resource Systems in Taiwan

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Abstract : Global climate change alters rainfall characteristics, while the variation of these characteristics further influences environmental conditions, such as hydrologic responses, landslide areas, and the amounts of diffuse pollution. The variations of environmental conditions may impact the stability of water resource systems. The objective of this study is to assess the present conditions of major water resource systems in Taiwan. The impact of climate change on each system is also discussed herein. Compared to the water resource systems in northern Taiwan, the ratio of the precipitation during the rainy season to that during the dry season has a larger increase in southern Taiwan. This variation of hydrologic condition impacts the stability of water resource systems and increases the risk of normal water supply. The findings in this work can be important references for water resource management.

Keywords : basin management, climate change, water resource system, water resource management

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