

Assessment of Water Policy from Sustainability Perspective—a Case Study for an Arid Region in China

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Abstract

Various water management policies have been implemented to balance water demand with water availability across the world. However, long-term effectiveness of water policies have been less studied. The present study targets a water allocation policy in an arid region in northwest China implemented in 2001. This policy's success was assessed from three dimensions: society, the environment, and the economy. It highlighted the best outcomes of the policy intervention while revealing some hidden issues. It was found that although the policy was successful in placing a ceiling on water use in the middle reaches of the Heihe River and transforming the region into a water-saving society through various measures, over-fertilization may have impacted the quality of groundwater and soil to a non-negligible extent. Besides, the Water User Association, one of the main actors in water policy implementation, was under-recognized, even though it functioned fairly well. Moreover, the economic structural adjustment at the macro level had not led to any significant reduction in water use, the reasons for which were explored.