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Evaluating Economic Benefits of Water Diversion Project for Environment Improvement: A Case Study

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ABSTRACT

The research in this paper was based on the project of water diversion from the Yangtze River to the Taihu Lake which significantly improves water environment of the lake and brings obvious economic benefits for surrounding areas. An analytical framework is developed on evaluating benefits of water supply to Huzhou city from project of water diversion from Yangtze River to Taihu Lake, including: (1) the value-added of water supply on the project are divided into four parts according to the characteristics of Hangzhou- Jiaxing-Huzhou Plain area. (2) The utilization ratio of water diversion is defined based on the features of water resources. (3) The water supply effects on industries and residents' living are explored using partition coeffi-cient method in Huzhou city. Grey relation technique is used to examine the relationship between water use and industrial development in Huzhou, which aims to clarify the rationality of partition coefficient method. The results indicate that benefit of water diversion from Yangtze River to Taihu Lake to tertiary industry of Huzhou city is the highest, while that of industry is the lowest.

KEYWORDS

Water Environment, Water Diversion, Economic Benefit, Grey Correlation

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