Economic Implications of More Ecological Urban Water Systems

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Abstract: The purpose of the paper is to explore the social and economic implication of the alternative technologies on the ecological urban water system. According to an integrated research framework that suggests the social, economic and environmental aspects are all put into consideration, the paper makes the social and economic estimation on the efficiency and sustainability of the alternative technologies. Cost benefit analysis and life cycle analysis could be the methods for the evaluation. The paper takes Wuhan city of China to be the studied case, focusing on the technology of wastewater reclamation and reuse. A comparison is implemented between the “new” technology--decentralized wastewater treatment system and the “old” technology--centralized wastewater treatment system in aspects of economics and social effect. The paper benefits to provide complementary insight into the efficiency and sustainability of urban water system, and helps the decision makers to develop and select the efficient and sustainable water systems.