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# How could wastewater reuse in China meet the national ambitious water management strategy?

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**ABSTRACT**

Wastewater reuse could be an important way to augment the urban water supply. China has ambitious plans to promote wastewater reuse and make reclaimed wastewater as a key element of nationwide water resource management scheme. In this study, the development history and spatial-temporal distribution of wastewater reuse in China was firstly summarized, and then the challenges and recommendations of expanding wastewater reuse were analyzed. The growing water stress both in terms of water scarcity and quality deterioration has promoted the development of wastewater reuse in the past 70 years. The development of wastewater reclamation technologies, policies and regulations issued by governments significantly enhanced the process. Although rapid urban development offers favorable opportunities for wastewater reuse, management strategies for wastewater reuse have lagged far behind technology in the past few decades. Therefore, to meet the national ambitious strategy for water resource management, a series of management strategies that can create more secure, resilient and sustainable water systems are required, including improvement of reclaimed wastewater quality standard, establishment of comprehensive and mandatory regulation framework, enhancement of coordination between different agencies, increase of economic and financial assistances, and enhancement of public acceptance. The results could also provide references for other countries solving the problems during the development of wastewater reuse.

*Keywords:* Wastewater reuse; Water resource; Water management strategy; Sustainable development

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