

# The status quo and developing measurement of water reuse in China

Wei Li\*, Jing Li\*\*, Yiwen Wang\*\*\*, Yuxiu Zhong\*\*\*\*, Hongxian Liu\*\*\*\*\*, Peilei Li\*

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## ABSTRACT

Water reuse plays significant role in water saving and water environmental protection, and it helps alleviate the shortage of water resources. China's water reuse was put into practice since 1980s by means of pilot and promotion in National Fifth-year Plan and other strategies. The effects of water reuse is beneficial in both economic, social and environmental aspects. But some shortcomings still undermine future development of water reuse in China. To overcome and boost water reuse, Ministry of Water Resources conducted a successive survey across China.

The aim of this study is to demonstrate the current condition of water reuse in China in construction, funds, legislation, planning, policy aspects, to summarize problems and its reasons underneath, to make suggestions for further development. Basically, in 2010, China's water reuse is 2.83 billion cubic meters and the utilization rate is 10.35%. Water reuse in China has four major characteristics: the first one is water reuse differences in amount occur national-widely and North of China has the main percentage as 47.3%; the second one is water reuse is mainly in environment maintenance (42.1%) and industry cooling (29.8%); the third one is funds for water reuse station and pipe construction is main in non-fiscal budget which take percentage as 56.8%; the fourth one is progresses of administrative system, political system, price management, standard system and technologies go rapidly recently. The problems of water reuse such as lack in water reuse station, delay in pipe constriction and limits on water reuse amount still exist due to some reasons.

As a think tank of Ministry of Water Resources, we give some suggestions: firstly, water reuse needs to be integrated with traditional water resources allocation; secondly, public budgets need to be strengthened and income mechanism should also be constructed; thirdly, water resources integrated administrative of city and county should be boosted and roles as water reuse need to be clear and precise; fourthly, national, provincial and regional water reuse planning should be made in time; fifthly, regulations on water reuse should be programmed as soon as possible.

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\* Lecturer, Senior Engineer, Development and Research Center of Ministry of Water Resources, Beijing, China P.R..

\*\* Professor of Engineer, Water conservancy economy research institute, Development and Research Center of Ministry of Water Resources, Beijing, China P.R..

\*\*\* Senior Engineer, Development and Research Center of Ministry of Water Resources, Beijing, China P.R..

\*\*\*\* Professor of Engineer, Development and Research Center of Ministry of Water Resources, Beijing, China P.R..

\*\*\*\*\* Professor of Engineer, Development and Research Center of Ministry of Water Resources, Beijing, China P.R..

\* Senior Engineer, Development and Research Center of Ministry of Water Resources, Beijing, China P.R..