

Research on urban social water cycle

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Hydrological cycle plays an important role in the material cycle and energy flow in the earth and it has been changing from single to nature-manpower duality mode of water cycle because of the impact of human activities. The urbanization rate of the world will increase from 52.1% in 2011 to 67.1% in 2050 as predicted by UN. Thus the urban development and human activities will lay greater effect on water cycle. The social water cycle is the dominant water cycle in the urban and determines the quantity, quality and efficiency of urban water uses. However, there are few systematic studies on the urban water social cycle. The definition of urban water social cycle is proposed in this study. Furthermore, a series of key parameters such as the process, structure, state, flux, driving force of urban social water cycle are also described or identified on the bases of studies and analysis of evolving of urban water cycle in several cities which is in different developing stages. A deep understanding of urban water social cycle will help cities managers take proper regulations according to the city's developing state to improve the interactions among cities, citizen and water. Meanwhile, this research may provide reference for the development of subject system of urban social water cycle.

Biography

Zhiguo Zhang has completed his Ph.D at the age of 27 years from Beijing Normal University, China. He has published more than 15 papers and books as corresponding author or member of author's team, covering urban water resources management, hydrology, urban development, climate change et al.

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