



Water resources evolution and social development in Hai River basin, China

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The Hai River basin is one of the three important bread baskets in China. As the rapid economy development in the basin, surface water reduction, groundwater overexploitation and water pollution had caused serious deterioration of the ecological environment. The rainfall, evaporation, surface water, groundwater, water quality, pollution sources, supply and demand of water resources were analyzed and the characteristic of water resources evolution was summarized in Hai River basin. Furthermore, the social and economic development and the relationship between water resources evolution and social development were discussed in the basin. It was found that the human activity is the first impact factor of water cycle in Hai River basin, and the climate change is the second. Finally, the attenuation of water resources in the basin was induced by the two factors together. For sustainable utilization of water resources in the Hai River basin, the unified management and optimal allocation of water resources should be strengthened and promoted.