



Study on Urban Green Zones Planning Standard considering the Water Resources constraints in China

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China is currently undergoing rapid urbanization and is no doubt, in a key period of urbanization. In order to improve people's urban environment, quality of life and living experiences, many cities have assigned large areas of artificial green spaces as part of their master plans. However, most of the existing green space/ zone planning do not consider the availability, requirements and constraints of water resources. Hence, the implementations of such plans fly in the face of water resources scarcity and associated risks. This paper investigates the relationship the level of economic development, and a composite index for local water resources and localized urban planning, for 26 cities in China. Using remote sensing image interpretation technology, the status quo of urban green space data can be extracted and the above relationship can be quantified using factor analysis. Based on the results of such factor analysis, China's urbanization relationship with water resources can be grouped into three classifications, i.e. urban green space planning standards: (1) Northwest criteria; (2) Yangtse & Huaihe River criteria; (3) South criteria. Three cities are selected from three typical climatic zones: Lanzhou, Hefei, and Hangzhou for verification of this relationship. The study showed that the three criteria proposed in this paper can serve as a basis for future planning of urban green spaces.