**Water Ecological Restoration in Beijing**

Wei Baoyi, senior engineer, Deputy Director of Ecological Planning Institute, BICP, spoke about the "Beijing Water Ecological Restoration and Conservation Planning and Implementation under the Background of Climate Adaptation".

A long-term and coordinated approach to eco-restoration has helped to improve the water quantity and quality in the five rivers of Beijing: Chaobai, Yongding, Juma, Beiyun and Ju rivers. Owing to rapid urbanization from the 1980s, the rivers had nearly dried up. They had water in the rainy season but there were major water quality issues as indicated by the lack of marine biodiversity. The groundwater levels in the region had dropped significantly.

The Beijing River planning and design guidelines to manage and govern the water system in the city envisage coordinated governance across department at various levels, recognize the diversity of roles, consider the system as a whole and have a mechanism for citizen engagement. Different agencies have been assigned specific tasks to manage infrastructure, landscaping, etc., along with public participation.

Beijing’s water demand was nearly 4 billion cubic metres (BCM) per year. Part of this was met through the South-North Inter-Basin Transfer Project with water from the Yangtze River. The Beijing Municipal Government stepped up efforts for protecting water bodies and treatment and reuse of polluted water. As a result, more than a fourth of the city’s water needs are met from recycled water. Beijing has a large network of sewers and treatment plants.

Other eco-restoration measures included managing floods by protecting the floodplains, plantations and preventing pollution from domestic sewage. For example, the construction boom created a demand for sand and gravel, that were mined from the rivers. The mined areas were rehabilitated through tree plantation and have become ecologically diverse recreation spaces. Water quality management has been improved to ensure downstream areas are not affected.

He gave two case studies of ecological river restoration. The first pertained to the Yongding River that flows through the Beijing and Tianjin municipalities, and the provinces of Shanxi and Hebei. The four provinces/municipalities signed an agreement to restore the river by 2025. The river was divided into the catchment, middle section and lower section and specific actions have been developed for each section. The second case is the Chaobai River, which is an important water source and urban flood control security barrier for the capital and is an important ecological corridor connecting the northern mountains and the southeastern plains. With the aim of ensuring flood control, increasing water sources and improving ecological water volume, the agreement took a series of measures including controlling the water environment and restoring the ecological environment, constructing an urban "sponge group", and building a solid ecological pattern of blue-green integration.