Restoring Shanghai's Suzhou Creek

This waterway rehabilitation project in the People's Republic of China not only restored the quality of water and improved public health, but also created a clean, green space for the community to enjoy.

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For Lu Wei, a 35-year-old seafarer, Suzhou Creek was a place to be avoided. It smelled bad and was not a safe play area for children like his daughter.

Today, Wei brings his 2-year-old daughter to play near the creek in Shanghai every day when he is home. The waterway is clean and the surrounding environment is safe and green.

"This environment is really good," said Wei, as he played with his child near the creek. "This is good for my growing child; I treasure this time with my daughter."

The creek was transformed as a result of the Suzhou Creek Rehabilitation Project, which was supported by ADB.

"The project was designed to upgrade water quality, water management, and flood control in the area," said Sangay Penjor, a lead urban development specialist in ADB.

Shanghai's rapid growth

The project addressed the environmental consequences of an explosion of growth in Shanghai. The city's population expanded from 13 million to 23 million between 1999 and 2010 as the area developed into a major industrial, commercial, financial, and shipping center.

While this growth improved the lives of many, it damaged the environment in some areas, including Suzhou Creek, which flows from nearby Taihu Lake for 53 kilometers through Shanghai before entering the Huanpu River near the historic Bund district at the heart of the city.

A key transport channel for centuries, Suzhou Creek had become jammed with vessels transporting everything from building materials and bulk grain to solid waste. The waterway also provided vital flood control and drainage functions for the area, and water for farmland irrigation and nearby factories.

The creek had suffered years of pollution by raw industrial and city wastewater, waste and spills from boats, and human waste that
it was nicknamed the "black and stink."

The creek's water failed to meet even the country's lowest water quality standards, and more alarmingly, had become a public health hazard because of the risks of spreading cholera, typhoid, dysentery, and other diseases. The city's children and the poor were most vulnerable as they lived and played near the creek.

### Cleaning up the creek

To address the problem, the Shanghai Municipal Government and ADB in 1996 embarked on a long-term partnership to clean up the creek. The goal was to restore the quality of water and improve the quality of life for people living nearby.

During 2000-2005, the project supported the construction of systems to divert sewage away from the creek and a pumping station to flush the creek. The project also helped finance the installation of a barge that reoxygenated the creek to help bring aquatic life back.

A wastewater treatment plant, with a capacity of 400,000 cubic meters a day, was built, as well as solid waste collection wharves. Embankments were put in place to provide green space along the creek.

"These measures removed wastewater from the creek and kept it out," said Sangay. "By the time the project was completed, the discoloration and foul smells for which Suzhou Creek had long been known were gone."

### Improving the lives of millions

The project benefited about three million people living near the creek. It improved the environment of large areas of Shanghai by not only improving sanitation services but also by providing greater access to parks and green spaces along the riverbanks.

The project also reduced many serious risks to public health by removing the sewage that transmits a variety of deadly diseases.

Surveys taken after the project demonstrate its profound impact on the people of Shanghai. Satisfaction with the city's environment improved from 12% in 2000 to 71% in 2003, while satisfaction with water quality improved from 12% in 2000 to 76% in 2003.

The project illustrated how partners can work together to improve the lives of millions. ADB's $300 million loan represented 34% of the total project costs of $876 million. It was supported by $325.4 million from the State Development Bank and $132.5 million from the Ministry of Finance. The Shanghai Municipal Government provided $62.7 million, while district and county governments put in $55.4 million.

Li Mei Kuen, who has lived half her 79 years near Suzhou Creek, has seen the waterway come full circle. More than 30 years ago, before the growth of Shanghai, the creek was clean and surrounded by vegetation. She watched over the years as factories sprouted along the creek and sewage was dumped into the area.

"The water is clear now," she said. "Now we can enjoy the creek. Older people gather here to play mahjong, enjoy the sun, and make small talk."

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