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GLOBAL EXCHANGE

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Global Waterfronts: Green Growth, Great Rivers, and Port Cities

Cities across the globe are revitalizing their waterfronts, integrating them into larger watersheds, molding more sustainable policies, and safeguarding their water resources

BY BONNIE A. HARKEN, AIA

(above) Scientists in Brooklyn Bridge Park collecting data on the impacts of floating structures for the PANYNJ pilot project on the Southwest Brooklyn waterfront.

The power and widespread flooding of Hurricane Sandy caught many Americans by surprise. But so did the drought that threatened to ground shipping on the Mississippi River just three years after devastating floods along its lower basin. Water's unpredictability, declining quality, and increasing scarcity are grabbing headlines around the globe. At the World Water Forum in Marseilles, France, last spring, hundreds of exhibits competed to show how green techniques can address gathering water crises. At the forum, the World Water Council released recommendations from a year-long study on the role of water in green growth. Some case studies are counterintuitive: removing dams on Maine's Penobscot River could actually increase hydropower capacity while recovering ecosystems and fish habitats.

"Green growth" evolved in response to the high environmental cost of rapid urbanization and traditional economic development. The protection and management of water resources play a significant role on an environmentally sustainable, low-carbon, socially inclusive path to economic growth. In water terms, green growth is the polar opposite of developments like the Three Gorges Dam. My organization, Nautilus International Development Consulting, which is devoted to the development of sustainable urban waterfronts, assisted the World Water Council and its partner, the Republic of Korea, in documenting the importance of water resources, the role they play, and how to enhance that role by reshaping policy frameworks.

The Penobscot River is just one of the success stories. In Istanbul, Turkey, cleaning up a polluted waterway in the Golden Horn estuary became the catalyst for multidimensional economic and social development. Investments in major infrastructure combined with small-scale innovations in Gujarat, India, have given millions of people access to clean drinking water. Also impressive is the Republic of Korea's green investment program, which allocates 2% of annual GDP to sustainable projects. The Four Major Rivers Restoration Project, a bold infrastructure project and a priority of the South Korean government, has helped secure water supply, manage both floods and droughts, restore ecosystems, improve water quality, develop riverfronts, and create recreational and cultural amenities on riverbanks. Underpinning these successes is the need for strong political leadership that crosses political boundaries to support planning, regulation, and funding at the watershed level. An exemplary model of this is ANA (Agência Nacional de Águas/National Water Agency) in Brazil. It manages 12 hydrographic regions that span