Wetlands for Urban Resilience

Highlights from our work across the globe

Wetlands International works with not just cities, urban planners, architects and engineers but also communities to incorporate wetland ecosystems in resilience infrastructure and urban planning. Through multi-sectoral initiatives, we aim to maximise the services that wetland ecosystems provide for flood, drought and heat wave reduction as well as water purification. Making wetlands part of the urban fabric boosts their co-benefit potential in terms of health, mobility, recreation and urban aesthetics.

East Kolkata wetlands, India

Our South Asia team's analysis of wetland loss concluded that urbanisation, contamination from sewage and fish farms are rapidly diminishing the East Kolkata wetlands, and in turn, their services for flood protection and water provision. To counter this, we developed a holistic wetlands management plan with stakeholders to conserve the ecosystem and allow integration of ecosystem services and biodiversity values in the city's urban and suburban planning. This resulted in an institutional framework for their wise management.

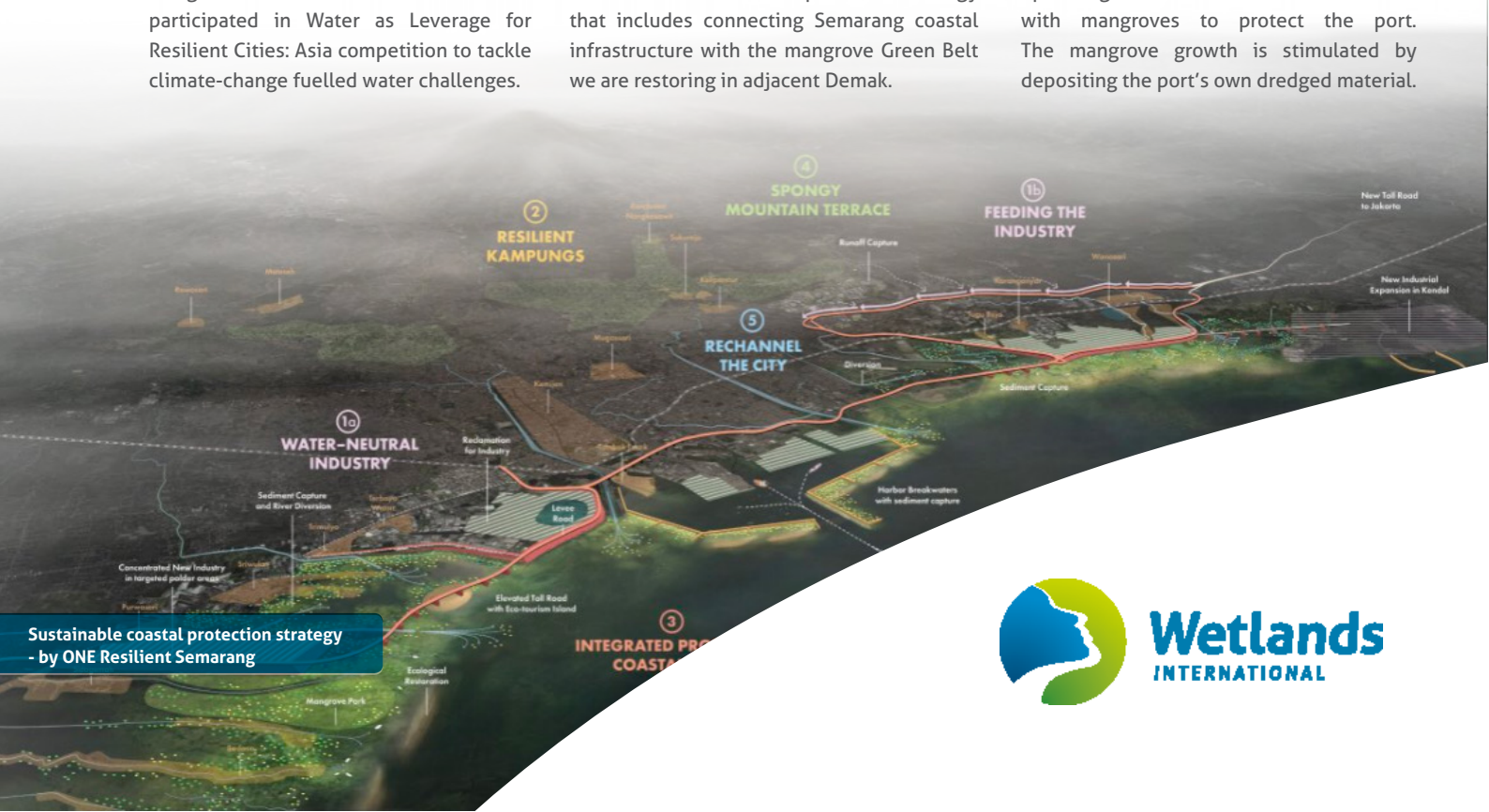
Urban development surrounding East Kolkata Wetlands

Water as Leverage for Resilient Cities: Asia

As part of the ONE Resilient Semarang design team, Wetlands International participated in Water as Leverage for Resilient Cities: Asia competition to tackle climate-change fuelled water challenges.

We promoted a strong ecological component in the sustainable coastal protection strategy that includes connecting Semarang coastal infrastructure with the mangrove Green Belt we are restoring in adjacent Demak.

The 'Building with Nature' approach for the upcoming harbour combines breakwaters with mangroves to protect the port. The mangrove growth is stimulated by depositing the port's own dredged material.



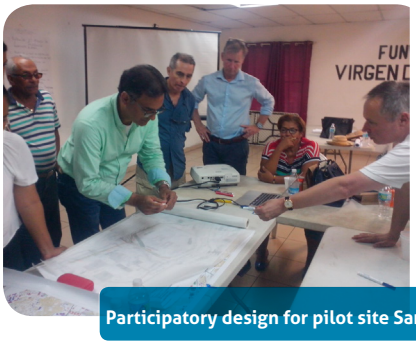
Sustainable coastal protection strategy - by ONE Resilient Semarang

Wetlands INTERNATIONAL

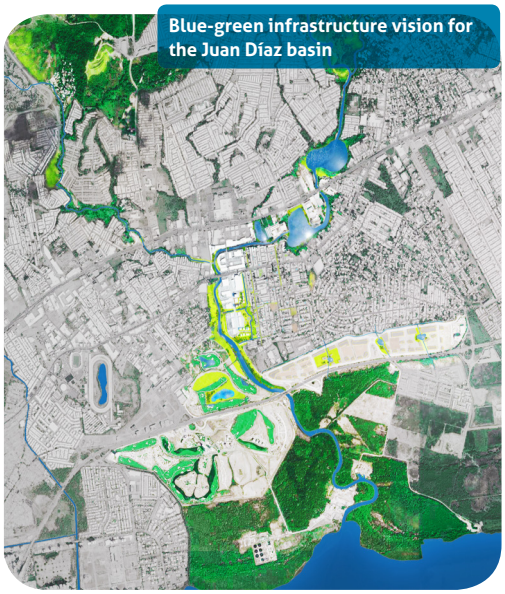
Mangroves provide coastal protection in Panamá City

Flood protection in the Juan Díaz basin, Panamá City

We coordinated the Panama Dutch Water Dialogues directed at solutions to frequent urban flooding in the Juan Díaz watershed in Panamá City. Together with the Municipality and Dutch water experts, we developed a vision while ONE Architecture piloted the design for one key area. We also developed new regulations to prevent flood risk that are to be adopted by the new municipal administration. Next step is the participatory design and building of flood risk reduction infrastructure for the entire middle basin financed by a loan from Inter-American Development Bank.



Participatory design for pilot site Santa Inés



Blue-green infrastructure vision for the Juan Díaz basin

Influencing the Manila Bay Sustainable Development Master Plan

Together with our Partners for Resilience (PfR) alliance, we are engaged in the formulation of the Manila Bay Sustainable Development Master Plan to prevent land reclamation on mudflats and mangroves with prized biodiversity. We bring in knowledge on wetland and waterbird habitats as well as communities' voices into the planning process. The aim is to ensure these perspectives are respected in the sustainable growth of the Philippines' capital region.

Land reclamation for urban development in Manila Bay

Main partners and donors

one architecture

Water for as Resilient Cities Leverage Asia

PARTNERS FOR RESILIENCE
Working together on disasters, climate, ecosystems

Kingdom of the Netherlands

ALCALDIA DE PANAMA

EcoShape
building with nature

Deltares
Enabling Delta Life

More information

Sander Carpay
Wetlands International
Email: sander.carpaij@wetlands.org
Tel. +31 318 660 930
www.wetlands.org/urban

Wetlands International
@WetlandsInt
Wetlands International

Mangroves for coastal defence - Guidelines for coastal managers & policy makers
Wetlands International & The Nature Conservancy https://www.nature.org/media/oceansandcoasts/mangroves-for-coastal-defence.pdf

Managing urban flood risk in Blue Green cities
https://onlinelibrary.wiley.com/doi/full/10.1111/jfr3.12513

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