BUILDING RESILIENT ASIAN DELTAS

PROTECTING SOCIETIES, ECONOMIES AND ECOSYSTEMS

Asia's great deltas are home to over 400 million people and more than 10 mega cities. They support the world's most productive ecosystems and are critical to the economies, food security and sustainable development of the entire continent.

The Mekong Delta, for instance, accounts for half of Vietnam's rice production as well as boasting freshwater fisheries that feed millions. The Pearl River Delta is often referred to as the 'world's workshop' and generates 1/3rd of China's trade value. And the Ganges–Meghna–Brahmaputra Delta is one of the most densely populated areas in the world. In addition, these giant deltas are among the most biodiverse places on the planet, with a wealth of freshwater and marine species.

Yet the future of these great deltas is under increasing threat. Undermined by unsustainable human activities, they are sinking and shrinking: leaving them – and everything that depends on them – ever more vulnerable to the impacts of climate change.

Previous attempts to shore up Asia's delta have largely focused on treating the symptoms rather than addressing the root causes of the crisis: the interruption of the dynamic, natural processes that build deltas – and can keep them above the rising seas. It's time for a new approach, for an ambitious public-private initiative to promote sustainable solutions at scale to the systemic threats facing these deltas not just in coastal areas but also, critically, upstream – the Resilient Asian Deltas initiative.

Main: Fishing in the Mekong Delta – a fisherman checking his large red and yellow nets set on inland waterways

Inset: Delta cities like Chittagong in Bangladesh face increasing risks

THE MEKONG DELTA, FOR INSTANCE, ACCOUNTS FOR HALF OF VIETNAM'S RICE PRODUCTION AS WELL AS BOASTING FISHERIES THAT FEED MILLIONS.

DELTAS AT RISK

THE CONTINENT'S LARGEST DELTAS ARE SINKING AND SHRINKING DUE TO A COMPLEX MIX OF HUMAN ACTITIVITIES.

Throughout their river basins, including poorly planned hydropower dams, in-channel sand mining, uncoordinated coastal development and excessive groundwater extraction – all of which are undermining the natural ability of delta systems to sustain themselves. As the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) made clear, the worsening impacts of climate change, including rising seas, changing precipitation patterns and increasingly frequent extreme weather events, will further exacerbate these threats.

GROWING VULNERABILITY OF DELTAS TO CLIMATE DISASTERS:

- SINCE 1988, OVER 300,000 PEOPLE LIVING IN ASIAN DELTAS HAVE BEEN KILLED BY TROPICAL CYCLONES.
- BY 2050, MORE THAN 1 MILLION PEOPLE WILL RELOCATE FROM THE MEKONG DELTA BECAUSE OF SEA-LEVEL RISE.
- IN 2015, FLOODING AND LANDSLIDES IN THE IRRAWADDY DELTA KILLED ALMOST 120 PEOPLE AND DISPLACED 1.6 MILLION, SEVERELY DAMAGING AGRICULTURE AND INFRASTRUCTURE.
- THE SEDIMENT DELIVERED BY THE INDUS RIVER TO ITS DELTA HAS DECREASED BY NEARLY 75% OVER THE PAST 30 YEARS, CAUSING A SIGNIFICANT REDUCTION IN THE DELTA

Fish ponds, Mai Po Nature Reserve, Hong Kong

FOUNDATION FOR SUCCESS: THREE PILLARS OF RAD

Rather than targeting the symptoms of erosion and land subsistence, the initiative will move beyond "business as usual" and focus on assessing and tackling the root causes of the crisis facing these dynamic ecosystems – so that they can continue to support hundreds of millions of people, productive agriculture and fisheries, thriving economies and expanding cities, and sustain the rich biodiversity of the region.

Launched in late 2019, the Resilient Asian Deltas initiative will be built on three core pillars, all actioned and implemented at both national and regional levels by RAD Members:

Secure political leadership, commitments and action

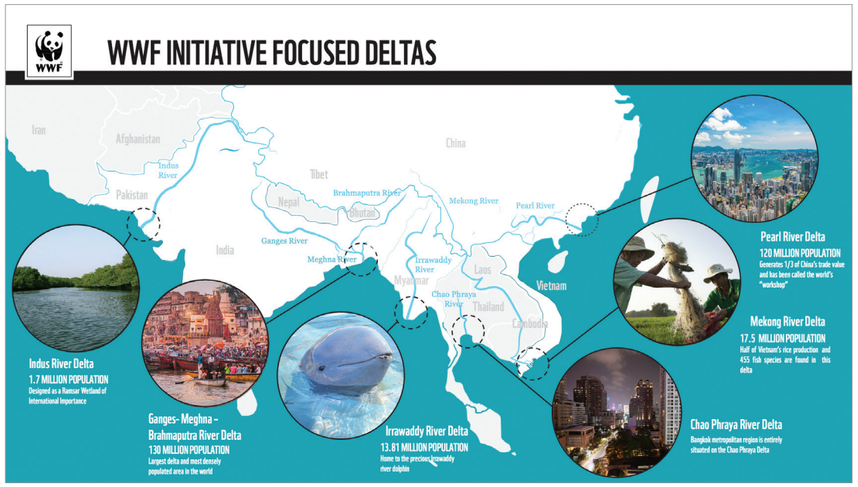
- Raise the issue of resilient management up the political agenda
- Develop holistic delta visions in each country
- Increase community participation in decision making
- Strengthen regional and transboundary collaboration

Implement building with nature solutions

- Identify and implement building with nature (BWN) solutions to address the root causes of sinking and shrinking
- Enable decision makers to identify the best available building with nature solutions through a Decision Support Framework
- Mainstream BWN principles and the Framework into country planning
- Partner with private sector to champion BWN

Mobilize financing to turn visions into actions

- Develop a resource mobilization plan for each delta
- Establish a delta project incubation facility to develop bankable projects
- Secure financing for a pipeline of projects.
- Push for commitments on financing building with nature investments



"RESTORING RESILIENT DELTAS IS AMONG THE MOST EFFECTIVE CLIMATE ADAPTATION STRATEGIES FOR THE REGION AND IS ALSO THE BIGGEST OPPORTUNITY TO BEND THE GLOBAL BIODIVERSITY CURVE IN TERMS OF NUMBERS OF SPECIES AT RISK."

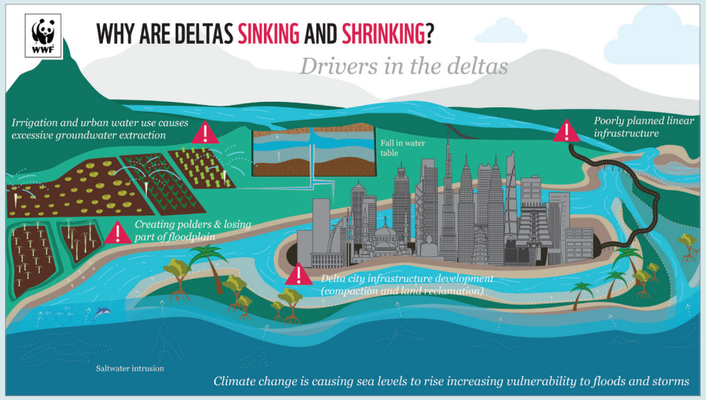
Henk Ovink, International Water Envoy, Government of the Netherlands

RESILIENT ASIAN DELTAS (RAD) INITIATIVE: AN AMBITIOUS AGENDA FOR CLIMATE ADAPTATION

WWF, the Government of the Netherlands (a core member of the Delta Coalition), and ABInBev, with support from the World Economic Forum, are mobilizing a Resilient Asian Deltas (RAD) initiative to stop six of the continent's largest delta systems – Chao Phraya, Ganges-Meghna-Brahmaputra, Indus, Irrawaddy, Mekong and Pearl – from sinking and shrinking.

By facilitating a broad coalition of public-private champions, including delta governments, investors, insurers, CSOs and privatecompanies, the initiative will tackle the complex challenges facing Asia's deltas and build more resilient societies, economies and ecosystems. To achieve this vision, RAD will catalyse unprecedented political support for and financial investment in 'building with nature', thereby protecting and restoring the natural river and coastal processes that replenish deltas and will keep them above the rising seas.

Both the IPCC Special Report and the flagship *Adapt Now: A global call for leadership on climate resilience* report from the Global Commission on Adaptation highlight the vulnerability of deltas and call for adaptation efforts to be urgently scaled up. The IPCC report specifically mentions the importance of sediment supplies from river basins for the stability of deltas, while RAD will be included within the GCA's Water Action Track.



IMPACT OF THE INITIATIVE

Building the resilience and restoring the integrity of Asia's great delta systems will contribute significantly to climate mitigation and adaptation efforts in the region. Deltas that are receiving sufficient natural sediment to stop them from sinking and shrinking will also deliver other important social, economic and environmental outcomes in the coming years:

- INCREASED RESILIENCE OF THE MOST VULNERABLE PEOPLE
- INCREASED RESILIENCE OF INFRASTRUCTURE AND THE BUILT ENVIRONMENT
- INCREASED RESILIENCE OF ECOSYSTEMS AND ECOSYSTEM SERVICES
- IMPROVED RIVER HEALTH
- INCREASED BIODIVERSITY

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THE INITIATIVE WILL ALSO CONTRIBUTE TOWARDS MANY SDGS


Mangrove forest

Underpin sustainable growth by preventing the sinking of deltas and sustaining healthy ecosystems, which will improve water supply, and agricultural and industrial productivity as well as reduce exposure to floods and inequalities in climate risks in both rural and urban contexts;

Enhance food security by protecting world's most productive rice bowls and fisheries, which provide the most cost effective – and emissions-free – protein:

Boost climate adaptation and mitigation by improving the resilience of over 400 million people and regenerating mangroves, which will increase carbon capture (and strengthen coastal protection)

Bend the biodiversity curve by ensuring healthier habitats, which will support many endangered species from the Ganges river dolphin to fishing cat, tiger, Hawksbill turtle and Mekong giant catfish while providing an astonishing variety of species (455 species of fish in the Mekong Delta alone) with a better chance to survive and thrive.

WWF

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