

Engaging with the Nature-Based Solutions coalition for the Climate Action Summit
Resilient Asian Deltas

i. Title/Heading: **Resilient Asian Deltas (RAD) Initiative**

ii. Context and rationale:

The future of Asia's great deltas are threatened by a complex mix of unsustainable human activities, including unregulated sand mining, poorly planned hydropower dams, uncoordinated coastal development and excessive groundwater extraction – all of which are undermining the natural ability of deltas to sustain themselves. The impacts of climate change, including rising seas, changing precipitation patterns and increasingly frequent extreme weather events, further exacerbate these threats. As a result, hundreds of millions of people, thriving economies, unique ecosystems and rich biodiversity are at risk.

Previous attempts to tackle delta threats have largely focused on treating the symptoms (e.g. flood control infrastructure) rather than addressing the root causes of the interruption of the natural processes that build the deltas (e.g. upstream sediment loss from sand mining and hydropower). This initiative will tackle the root causes of the crisis by providing sustainable solutions to systemic threats not only in coastal areas but also, critically, upstream.

iii. An overview of the contribution:

WWF's Resilient Asian Deltas (RAD) initiative aims to stop the continent's six largest delta systems – Ganges-Meghna-Brahmaputra, Indus, Irrawaddy, Mekong, Pearl and Yangtze – from sinking and shrinking. Targeting common challenges, the initiative has been designed to reduce barriers, respond to opportunities, and scale up solutions that will transform attitudes and approaches to defending deltas and ensure that the: Long term resilience of Asia's delta systems is improved through unprecedented political and financial investment in 'building with nature', which will protect and restore the natural river and coastal processes that replenish deltas and will keep them – and the societies, economies and nature that depend on them – above the rising seas. RAD is built on three pillars, with actions being implemented at both national and regional levels. These levers will support achievement of the RAD milestones and outcomes:

- *Pillar 1 – Secure political leadership, commitments and action*
- *Pillar 2 – Implement building with nature solutions*
- *Pillar 3 – Mobilize financing to turn vision into actions*

iv. How the contribution leverages living natural systems as a solution to avert climate change?

RAD emphasizes the importance of 'building with nature' and the benefits nature provides as a key solution for delta and coastal resilience. From restoring fluvial and coastal sediment flows to creating more room for rivers, from reconnecting floodplains to restoring mudflats, mangroves and other wetlands, from minimizing the impact of new infrastructure on river flows to creating ponds and sponge cities to compensate for expanding areas of impermeable concrete, 'building with nature' across their river basins would transform the future of these deltas.

v. How might the contribution support both climate, mitigation and adaptation as well as other important co-benefits and social, economic and environmental outcomes in coming years. They may include:

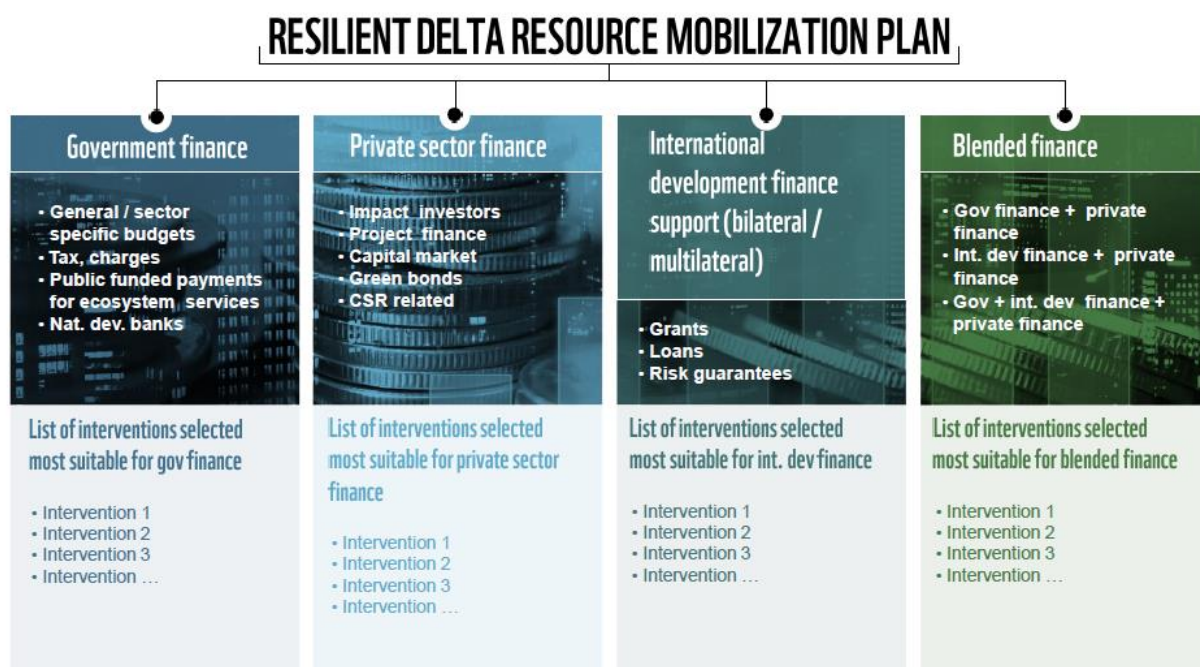
- a. Reduction in carbon emission and carbon capture (GTonnes) – a reduction in mangrove deforestation will result in reduction in carbon emissions, while mangrove reforestation will result in carbon capture.
- b. Increasing climate resilience – a delta that is receiving its natural sediment delivery, stopping it from sinking and shrinking will provide a more resilient geography to the

hundreds of millions of people, thriving economies, unique ecosystems and rich biodiversity in the delta.

- c. Social impact (job increase; poverty reduction; Just transition, etc.) – a more climate resilient delta, with functioning ecosystem services is more likely to support a thriving economy and society.
 - d. Net economic impact (total in US\$; how was it achieved?) – This is yet to be fully calculated, since the initiative concept is still under development in terms of the exact metrics and monitoring.
 - e. Impact on realization of the 2030 Agenda for Sustainable Development (in particular SDGs 1,2,6,12,13,14,15,16) - The initiative will contribute towards a number of SDGs including: 1. No poverty; 2. No hunger; 5. Gender equality; 6. Clean water and sanitation; 7. Affordable and clean energy; 11. Sustainable cities and communities; 13. Climate action; 14. Life below water; 15. Life on land and 17. Partnership.
 - f. Food security - a healthy delta is more likely to provide the ecosystem goods and services, including cost effective protein in the form of freshwater fisheries.
 - g. Minimising species extinction and ecological losses and fostering an increase of biodiversity - These deltas support many critically endangered species, including Ganges river dolphin (Ganges-Meghna-Brahmaputra), fishing cat and giant snakehead (Indus), Hawksbill turtle and various mangrove species (Irrawaddy), Mekong giant catfish (Mekong), Chinese white dolphin (Pearl), and the finless porpoise and Chinese alligator (Yangtze). Ensuring these deltas are healthy will give these species – and many others – a chance of survival, and help to bend the global biodiversity curve.
- vi. Which countries and organisations are involved in the contribution?
Core WWF implementing partners include WWF China, WWF Vietnam, WWF Myanmar, WWF India, WWF Pakistan and a partner organisation in Bangladesh (TBC). Other possible implementing and/or funding partners include The Dutch government, Global Resilience Partnership, Global Center for Adaptation, Deltares, Delta Alliance, Stockholm Environment Institute, Global Water Partnership and IUCN.
- vii. How have stakeholders (for example local communities, youth and indigenous peoples, where applicable) been consulted in developing the contribution?
This has not yet been carried out since the initiative is at an early conceptual phase.
- viii. Where can the contribution be put into action?
Into the design and implementation of the programme.
- ix. How the contribution will be delivered? How will different stakeholders be engaged in its implementation? What are the potential transformational impacts?
Achieving impact under the RAD pillars requires a broad range of public and private partners in delta countries, regionally and internationally. For Pillar 1 – WWF will build partnerships with governments at all levels and NGOs to increase the reach of impact of our messaging. For Pillar 2 – the team will collaborate with NGOs, academics, think tanks, engineering firms, development agencies and national partners to mainstream building with nature. For Pillar 3 – WWF’s existing relationship with public and private financial institutions, private sector companies, and development agencies will be mobilized.
- x. Is this initiative contributing to other Climate Action Summit workstreams (industry transition; energy transition; climate finance and carbon pricing; infrastructure, cities and local action; resilience and adaptation; youth and citizen mobilization; social and political drivers; mitigation strategy)?

Yes (to name a few): energy transition through the promotion of solar or wind over hydropower dams. Climate finance through the innovative bankable projects and private sector funding lens. Cities, since the majority of the deltas in the initiative are home to global mega-cities. Climate adaptation through supporting initiatives that “build with nature” and ensure that livelihoods are supported through healthy ecosystem services (i.e. fisheries).

- xi. How does this contribution build upon examples of experience to date? How does the contribution link with different ongoing initiatives?
WWF has offices, networks and partners in the five delta countries as well as in upstream states. Our experience in the region has helped to formulate this initiative. Many of the solutions in RAD build upon the already-existing initiatives such as mangrove reforestation or political engagement around sediment management in river systems. RAD is an initiative to broaden the scope and deepen the interlinkages among the deltas facing common challenges.
- xii. What are the mechanisms for funding (with specific emphasis on potential for partnerships)?
In addition to traditional funding sources including WWF, GCF, GEF and others, RAD will leverage private sector as a key partner, bringing in financing needed to address large scale threats and de-risk investments. This initiative will also support an enabling environment and growth of a solution pipeline that will incentivize investors from the public and private sector across the six deltas.



- xiii. What are the means of stewardship, metrics for monitoring?
Still under development, the outline metrics are shown below, exact numbers to be determined.

XXX healthy and resilient rivers and deltas	<p>Conserve the dynamic equilibrium of each delta through XX water flow and XX sediment flow in each basin</p> <p>Conserve xxx ha of seasonally floodable land, xxx deep non-replenishable groundwater</p>
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xxx high risk people, including xxx number of women	Protect Indirect/Direct - xxx number of population, with at least % of women, their life, income and livelihood from river basin and delta threats caused by human activities and as a result their resilience to climate change impacts are increased
xxx high risk economic assets	Protect US\$ of economic assets (GDP value) from being exposed to physical risks (land loss, floods, etc) and, to a lesser extent, regulatory and reputational risks
xxx high risk species and biodiversity	Protect xxx number fish species, xxx number of bird species, xxx number of aquatic mammals (including dolphins) Protect and restore xxx hectares of critical habitats (wetlands, mangroves, etc)

- xiv. What is the communication strategy?
Still under development since this initiative is at the conceptual phase.
- xv. What are the details of proponents (indicating the degree of commitment among the countries and organizations that are named).
WWF implementing partners include WWF China, WWF Vietnam, WWF Myanmar, WWF India, WWF Pakistan. Other proponents have been in discussion but to date are not "formalised". Initiative lead contact: Shannon Siyao Wang. Email: Shannon.SiyaoWang@wwf.panda.org