Deltas in a Changing Climate

The Urbanised deltas are some of the most challenging regions in the world, especially considering their large concentration of population (half of world population by 2050), their significance for the world’s economy and their role in the world's ecosystems. These low elevated coastal urban cities in Asia-Pacific (Bangladesh, Cambodia, China, India, Indonesia, Pakistan, Philippines, Myanmar, Singapore, Thailand and Vietnam) are populated with more than 374 million people.

Owing to their low-lying location, deltas are increasingly vulnerable to hazards like floods, droughts, saltwater intrusion, land subsidence, erosion/sediment starvation and infrastructure on soft soils. Urbanisation and densification of land in deltas also result in negative impacts and decreases the resilience of the system.

In light of the growing uncertainties, decision-makers have started looking for new approaches that perform satisfactorily under a wide variety of possible future pathways, are adaptive over relatively short time periods and support long term planning under different plausible scenarios.

Responding through LDAI

Global Water Partnership (GWP) initiated the Learning Deltas Asia Initiative (LDAI) under the political auspices of and in operational cooperation with parties of the Delta Coalition. It is aimed at stimulating increased cooperation worldwide between those involved in the governance of deltas, strengthening a science-policy interface and, developing a framework for analysis and action.

As a typical means of multi-stakeholder process-based implementation, LDAI contributes to addressing Sustainable Development Goals (SDGs) and Sendai Framework adopted by UN Member States.
A comprehensive approach

Given the complexity of deltas, and their importance for achieving multiple SDGs locally and at broader scales, improved accountability mechanisms are critical in formulating viable sustainable development strategies.

Learning Deltas: How we planned it

The process follows a phased approach starting out with small scale activities, along with a pilot knowledge sharing between Bangladesh and Myanmar. The process and the results produced at the pilot/scoping phase will be used to scale up the initiative to,

→ Learn successes, failures and lessons learnt in delta management and development
→ Promote exchanges of the lessons between deltas
→ Focus on south-south exchange and cooperation

Bangladesh Water Partnership (BWP) and Myanmar Water Partnership (MyWP) are leading the initiative as they have gained considerable experience in sustainable delta planning and have developed knowledge infrastructure in this field.

The activities will depend on the Learning Priorities defined by the countries which typically might include:

• Capacity building with exchange visits, local and international trainings/conferences and developing training tools.
• Joint research activities on delta issues being carried out by local knowledge institutes, supported by international institutes which will be subjected to be determined by partners
• Strategy Development through developing a framework of analysis for delta planning, defining the relation of delta planning with national and regional economic development goals and strategies and scheduling and planning of investments
• Project Development by developing proposals and translate national and regional strategies in bankable projects

Learning Deltas: Key Objectives

• Enhance the resilience of rapidly urbanising deltas (water security)
• Implement structural and non-structural projects to increase the resilience (including no-regret measures, green infrastructure)
• Develop sustainable bankable proposals for those projects
• Build capacity to increase the knowledge on deltas (physical, socio-economic, environmental, cultural and institutional)
A Brief Chronology of LDAI

The LDAI was conceived in 2014 as an “Enabling Delta Life” Initiative, a global project drafted with support of the Delta Alliance. The initiative was further advanced during three regional events held in 2016. The programme was fortified as the countries adapted the 2030 Agenda for SDGs, adaptation of Paris Agreement on Climate Change, Sendai Framework and launching of Asia Water Development Outlook (AWDO) 2016 report.

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<tr>
<th>Programme Summary</th>
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<tbody>
<tr>
<td>Regions            : South Asia and South East Asia</td>
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<td>Duration           : Five years</td>
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<td>Management         : Global Water Partnership with the collaboration of other partners</td>
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<td>Implementation     : Country Water Partnerships (CWPs) of GWP and their partners</td>
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<td>Supervision and Monitoring : LDAI Steering Committee</td>
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<td>Oversight and advisory : Delta Partners</td>
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<td>Funding            : Seed funding from GWPO and partners</td>
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<td>Estimated cost     : Euro 5 million</td>
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<td>Outcome            : Enhanced capacity of engaged stakeholders and institutions in furthering policies leading to higher levels of impact and sustainability, allowing for scaling up of resilience of urban deltas while assisting them in climate change adaptation.</td>
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Where we are

At the Scoping phase, LDAI defined three Learning Territories; two hotspots in Bangladesh having similar hydrological and climate-change vulnerability characteristics and problems converge such as sea level rise, river erosion, intensity of flooding, water shortages, and siltation constraints. One in Myanmar – Ayeyarwady Delta, the priority for Myanmar’s rural and urban development expectations. The mission to Bangladesh conducted in 2017 identified a long list of Learning Issues which has been considered to learn how Bangladesh has addressed them. LDAI identified two case studies from Bangladesh in order to organise Learning Routes where national authorities and international financial institutions have implemented the theoretical and conceptual frameworks identified above in the coastal area hotspots. The two ongoing projects are the Coastal Embankment Improvement project (CEIP) and Blue Gold project which subsequently provided clear Learning Pointers. With the knowledge of Learning Pointers LDAI conducted a mission to Myanmar and identified these Learning Priorities.

→ Innovated knowledge related flood embankments and Polders’ Management
→ Preparedness for future Climate Change and mitigation measures
→ Operation and maintenance of tidal river management and formation of water management groups
→ Raising awareness of local people on mangrove conservation and management
→ Capacity building on Integrated Water Resources Management (IWRM)

Having completed the Phase I (Scoping Phase), LDAI is now moving ahead with implementation of Learning Routes and negotiating with national authorities and donors

Way forward

Even through the initial phase is targeted on Bangladesh and Myanmar, it is expected LDAI to be expanded throughout the Asia-Pacific and invite other Delta Coalitions and GWP affiliated deltaic countries for collaboration.