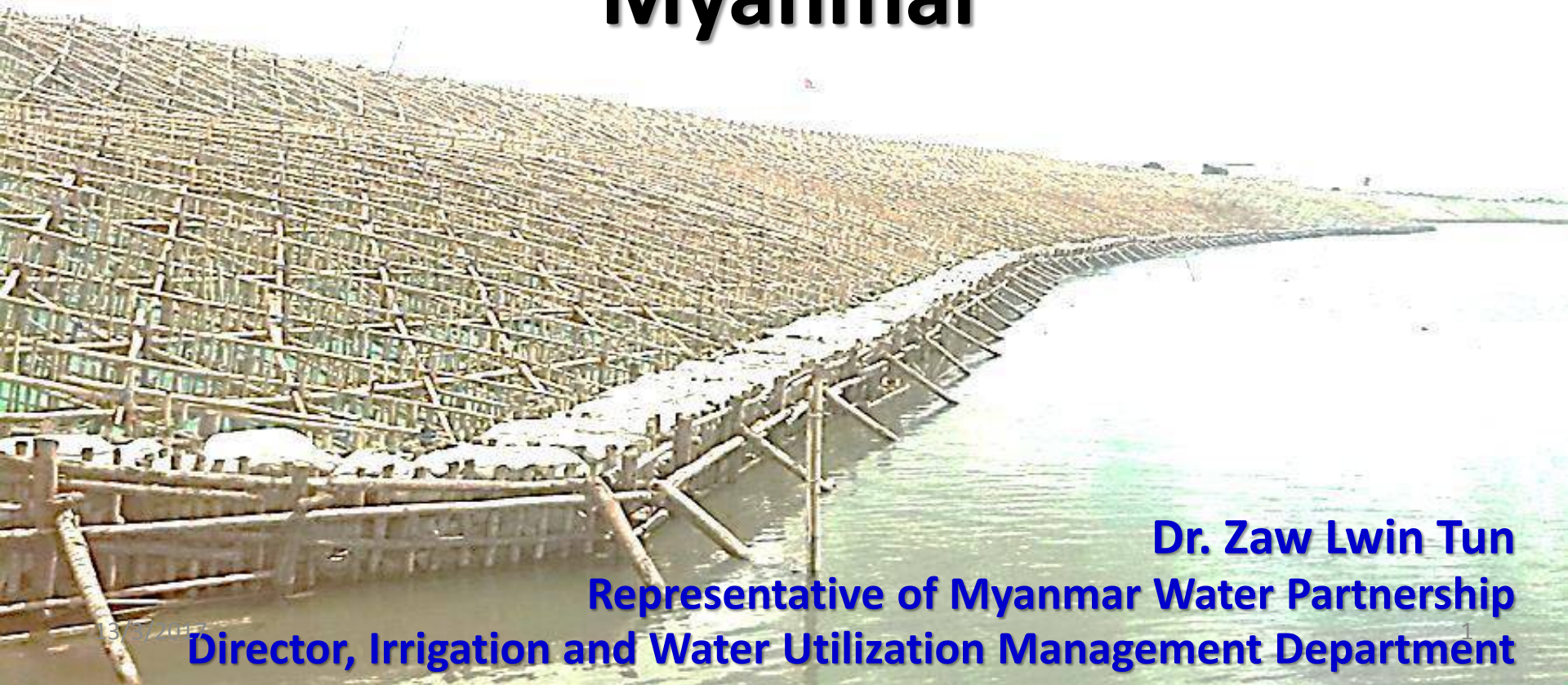


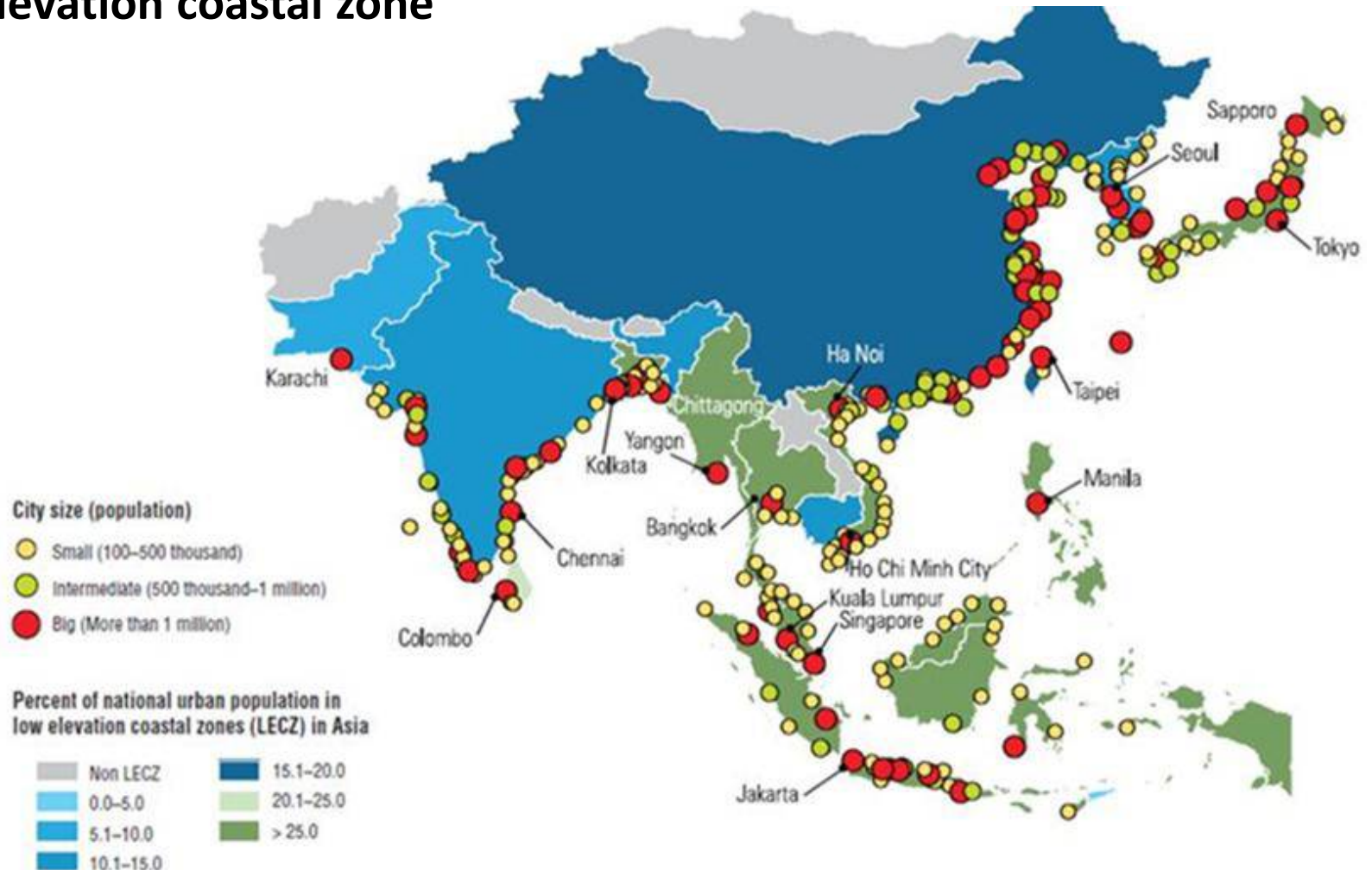
Learning Deltas Asia Initiative with Myanmar



Dr. Zaw Lwin Tun
Representative of Myanmar Water Partnership
Director, Irrigation and Water Utilization Management Department

Deltas and Coastal Cities in Asia

Coastal cities in Asia and percentage of national urban population in low elevation coastal zone



Source: Fuchs, R (2010): Cities at Risk: Asia's Coastal Cities in an Age of Climate Change. In: Analysis from the East-West Center, No. 96.

Climate-related Disasters – Top 10 Countries

Table 1: The Long-Term Climate Risk Index (CRI): the 10 countries most affected from 1994 to 2013 (annual averages)

CRI 1994–2013 (1993–2012)	Country	CRI score	Death toll	Deaths per 100,000 inhabitants	Total losses in million US\$ PPP	Losses per unit GDP in %	Number of Events (total 1994–2013)
1 (1)	Honduras	10.33	309.70	4.60	813.56	3.30	69
2 (2)	Myanmar	14.00	7137.40	14.80	1256.20	0.87	41
3 (3)	Haiti	16.17	307.80	3.41	261.41	1.86	61
4 (4)	Nicaragua	16.67	160.15	2.98	301.75	1.71	49
5 (7)	Philippines	19.50	933.85	1.13	2786.28	0.74	328
6 (5)	Bangladesh	20.83	749.10	0.54	3128.80	1.20	228
7 (6)	Vietnam	23.50	391.70	0.48	2918.12	1.01	216
8 (8)	Dominican Republic	31.00	210.45	2.38	274.06	0.37	54
9 (10)	Guatemala	31.17	83.20	0.68	477.79	0.62	80
10 (13)	Pakistan	31.50	456.95	0.31	3988.92	0.77	141

Climate-related Disasters – Deltas as hotspots

Region	Area	Major Cities
East Asia	<ul style="list-style-type: none"> • Coastal areas of PRC • Deltaic areas of Yellow, Yangtze, and Pearl rivers • Southern Honshu • Qinghai-Tibetan Plateau 	<ul style="list-style-type: none"> • Guangzhou • Nagoya • Osaka • Shanghai • Seoul • Tianjin • Taipei City
South Asia	<ul style="list-style-type: none"> • Deltaic areas of Ganges-Brahmaputra, Mahanadi, Godavari, Krishna, and Indus rivers • Nepal's Himalayan region • Most of Bangladesh • Southern Parkisan 	<ul style="list-style-type: none"> • Chennai • Dhaka • Kolkata • Mumbai • Karachi
Southeast Asia	<ul style="list-style-type: none"> • Deltaic areas of Mekong, Red, and Irrawaddy rivers 	<ul style="list-style-type: none"> • Bangkok • Ho Chi Minh City • Jakarta • Manila • Singapore

Deltas in a Changing Climate: Key Features

❖ Deltas – low lying coastal areas

- *fertile, food baskets
- *often strongly urbanized
- *rich ecosystems
- *often in transboundary river basins



❖ Challenges

- *vulnerable to extreme weather events, including flooding from 3 sources (rain, river and sea)
- *salt intrusion
- *soil subsidence
- *erosion/sediment starvation



❖ Aggravated by

- *climate change, incl. sea level rise
- *upstream developments
- *transboundary water management



The Learning Deltas Initiative: A Brief Chronology

- 2014: **“Enabling Delta Life” Initiative**, a global project drafted with support of Delta Alliance
- Dec. 2015: Regional **Workshop on Flood Management**, Guangzhou, China
- May 2016: **HLP on Water Security and SDGs**, Yangon, Myanmar (delta focus)
- July 2016: Early discussion on **“Learning Deltas”** at Singapore Water Week
- Sept. 2016: **Meeting with IFIs** at SWWW and planning of **Manila Workshop**
- Oct. 2016 : **Learning Delta Initiative**, Manila Workshop



Learning Deltas: Key Objectives

- Enhance the **resilience of rapidly urbanizing deltas** (water security)
 - Implement **structural and non-structural projects** to increase the resilience (incl. 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, institutional, etc...)
- Need to follow an **integrated, holistic and inclusive approach!**

Learning Deltas: How to do it...

- **Bring key players together** in the deltas:
 - ✓ IWRM planners (often water ministries)
 - ✓ Planning and economic ministries
 - ✓ Finance and other sector ministries
 - ✓ Knowledge institutes, NGO's, private sector
 - ✓ Multilateral development banks and bilateral donors
- **Learn of the successes, failures and lessons learnt** in delta management and development
- **Promote exchanges of the lessons** between deltas
- **Focus on south-south exchange and cooperation**
- **Taking into account the SDGs**, specifically IWRM in a trans-boundary context

Learning Deltas: With whom to partner...

- **The Delta countries:**

Key players to be brought together by GWP's **Country Water Partnerships (CWPs)** or **Delta Alliance (DA) Wings** (in many countries CWP=DA?)

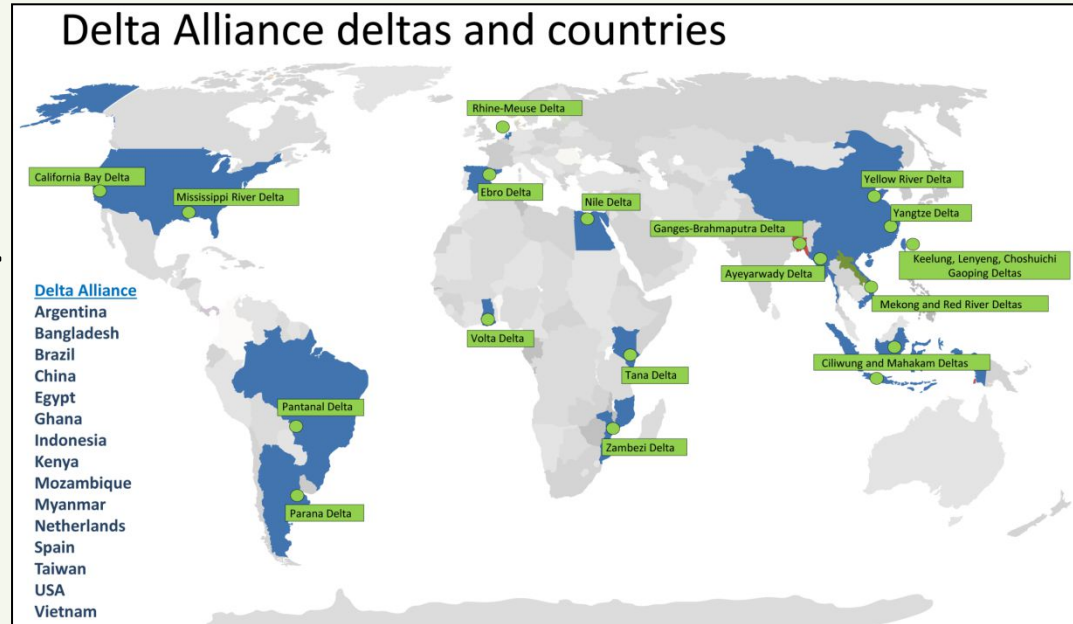
- **The Delta Coalition:**

High level governmental cooperation between delta countries

At this moment 12, of which 8 in Asia, growing

- **The IFIs (ADB and WB):**

Supporting the process and bringing in **some finance**



Delta Coalition Members

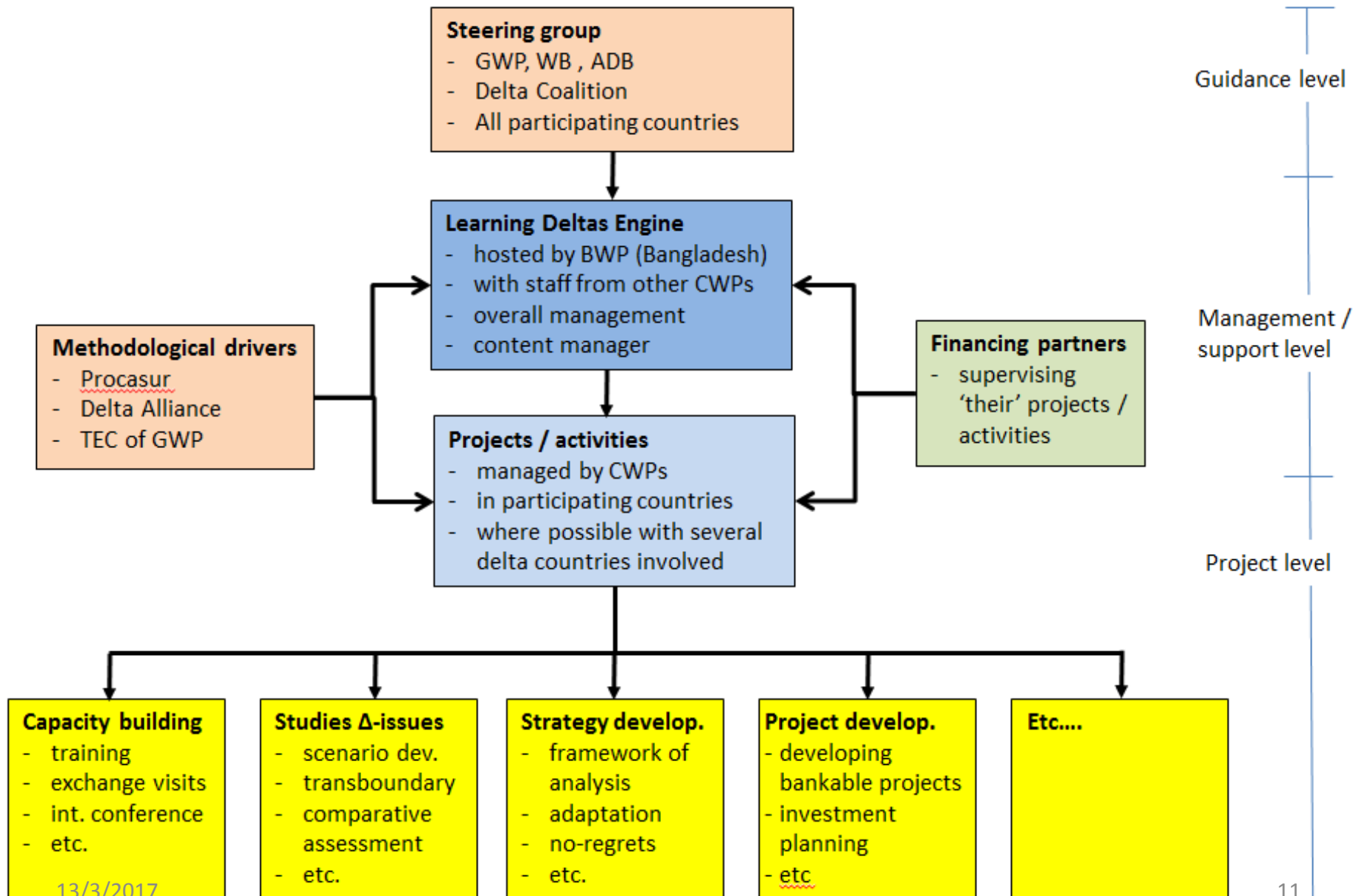
The Delta Coalition aims to improve and protect lives in urbanizing deltas. The coalition currently comprises 12 countries:



Learning Deltas: Organizational set-up

- **Focus on deltas in Asia**
- **Core to be established in one of the countries**
 - e.g. Bangladesh
 - in a professional institute of the Country Water Partnership
 - external financially supported (GWP, bilateral donor?)
 - to be considered as the 'Engine' of the Learning Deltas initiative
- **Projects to be developed**
 - in and between delta countries
 - that fits in on-going operational projects of ADB and WB
 - to be financed by those projects
- **South-south orientation and cooperation**
 - ... and with external support (e.g. by Delta Alliance, Procasur)

Learning Deltas: Proposed Organizational Set-up



Starting to Push the Reel

Learning Deltas Asia Initiative (LDAI)

❑ Selection of 5 Asian Delta Countries

- Bangladesh, Myanmar, Vietnam, Cambodia, China

❑ Objectives of LDAI

- Enable IWRM planning and implementation of Adaptive Delta Management;
- Engage broader sectoral integration and inclusive societal development processes that guide socio-economic resilience; and
- Support the planning and implementation of investment projects through innovative learning and knowledge processes building commitment and capacities

❑ Companion Countries

- Bangladesh and Myanmar
- Vietnam and Cambodia
- China

Starting to Push the Reel

Learning Deltas Asia Initiative (LDAI)

❖ End Result of LDAI

- an enhanced capacity of engaged stakeholders and institutions in policies and politics enabling higher levels of impact and sustainability allowing for scaling up of resilience of urban deltas and help them adapt to climate change

❖ The Ultimate Beneficiaries of LDAI

- the local communities in the deltas and relevant DRR communities, RBOs, NGOs, civil societies, private sector, etc. will be involved



Potential Target Deltaic Areas in Asia

COUNTRIES	DELTAIC AREAS	MAIN CITIES	RELEVANT ISSUES
Bangladesh	Ganges – Brahmaputra – Meghna Delta	Mongla, Chittagong	<ul style="list-style-type: none"> • Floods/droughts • Saltwater intrusion • Land subsidence • Erosion/sediment starvation • Infrastructure on soft soils • Ecosystem conservation
Cambodia	Tonl ^២ Sap, Mekong Delta (transboundary), Bassac River	Phnom Penh	
China	Bohai Sea, Yangtze River Delta, Zhujiang Delta	Tianjin, Shanghai, Guangzhou	
India	Calcutta, Chennai, Mumbai		
Indonesia	Mahakam Delta	Samarinda, Jakarta	
Pakistan	Indus River Delta	Karachi	
Philippines	Pasig River Delta	Manila	
Myanmar	Ayeyarwady Delta	Yangon, Patheingyi	
Singapore	Singapore River	Singapore	
Thailand	Chao Phraya River Delta	Bangkok	
Vietnam	Mekong Delta (transboundary), Red River Delta	Ho Chi Minh, Hanoi	

Next Steps

Phase I

- Concept note 2.0 to be shared with ADB and WB for their feedback, etc. (by end 2016)
- Drafting of a full concept note (BWP/IWM-MWP of GWP, Procasur) on Learning Deltas (by end 2016/January 2017), to be:
 - discussed with Delta Coalition, WB/ADB and Delta Alliance (December 2016, January/February 2017)
 - disseminated to relevant CWPs for their comments and operational buy-in (December 2016)
- Scoping of learning menu and knowledge holders (BWP/IWM-MmWP of GWP, Procasur, Delta Alliance-as appropriate, January-April 2017)
 - MmWP Scoping Mission to Bangladesh (end February 2017)
 - BWP Scoping Mission to Myanmar (end April/beginning May 2017)
- Learning Deltas Asia to be 'launched' during Ministerial Conference of Delta Coalition in Dhaka-Bangladesh, May 2017?
- Roll-out of pilot in 2017 (incl. metrics and monitoring/reporting and feedback; design of Phase II)



Thank you for your attention