Global Water Partnership South Asia

Cap-Net UNDP

Global Water Partnership Southeast Asia

Global Water Partnership Myanmar

Final Workshop Report

LEARNING DELTAS ASIA INITIATIVE - PHASE 2 INCEPTION WORKSHOP

6-7 December 2019
Yangon - Myanmar

www.gwp.org

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Introduction

Figure 1: Backdrop Design

The primary aim of Learning Deltas Asia Initiative (LDAI) is for south-south cooperation and knowledge exchanges on adaptation to climate change in urban Deltas. The first Learning Deltas Asia Initiative (LDAI) programme was initiated in June 2017 with a scoping phase that lasted for 6 months between two participant countries, namely, Bangladesh and Myanmar. The overall objective of the LDAI is to enhance capacity of engaged stakeholders and institutions in policies and to enable higher levels of impact and sustainability allowing for scaling up of resilience of urban deltas and to help them adapt to climate change. This initiative facilitates the south-south learning exchanges on delta management and resilience.

Following the successful implementation of the first phase, the second phase was designed to ensure a thorough knowledge exchange mechanism between key Asian deltas that will:

- Built knowledge base in place to facilitate knowledge exchange on five key learning areas related to management of Asian Deltas;
- Foster cooperation to develop joint solutions for increased water security and climate resilience in Asian deltas;
- Strengthen the capabilities of local institutions to enhance targeted outreach, impact and sustainability of Multilateral Development Banks (MDB)/Climate Fund co-financed projects and to improve the quality of project pipeline proposals.

LDAI phase 2 needs to be established with inputs of all partners in participating countries, headed by a project steering committee which will be the management body for ground level activities. The role of Regional Water Partnership South Asia (GWP-SAS) is to coordinate and implement the LDAI Programme under the guidance of GWPO and logistical support of Regional Water Partnership of Southeast Asia (GWP-SEA). Cap-Net UNDP will support the implementation of capacity development delivery and knowledge product development. This inception workshop of Phase 2 serves as a planning platform where all the participating countries could provide inputs to the strategic directions and operational mechanism of LDAI phase 2.

Objectives of the workshop

- To enhance the stakeholder cooperation in preparation and rolling-out Phase 2
- Ensure the relevance of LDAI into national level development agendas and streamline the LDAI activities in line with national planning of Deltaic countries,
- International organizations and donors' interests in collaborating with LDAI activities identified

Expected Outcomes of the workshop

- Declaration of LDAI learning agenda in line with national planning of Deltaic countries, and enhance relevance and stakeholder cooperation for LDAI

- Stakeholder responsibilities has been clearly identified and documented from each country participants for implementing the learning agenda
- Project level steering committee is set-up for LDAI

Attended Participants

During the 2 days of the workshop about 38 participants from both regions, donors, and other international organization were involved.

- Director/managers from Delta planning/management authorities of Asia:Bangladesh, Sri Lanka Myanmar, Philippines, Thailand, Vietnam, Indonesia, and China.
- Country Water Partnerships focal points from relevant countries
- Regional Water Partnership (GWP China, GWP SEA and GWP SAS)
- Cap-Net representatives
- Myanmar Cap-Net
- Donors, development partners interested/working with Delta (IWMI, WWF, KOICA, Embassy of the Netherlands in Myanmar)
- Delta Coalition
- Delta Alliance

The detail list of participant can be seen on the **Annex 1**.

First Day of the Workshop

Session 1: LDAI origin and how far has It flown?

Welcome and Opening Remarks

The first session started by welcome and introduction from the host participant, **Myanmar Water Partnership Chairman Dr. Zaw Lwin Tun** who also works for Ministry of Agriculture and Livestocks as the Deputy Director General for Irrigation and Water Utilization Management Department, Government of Myanmar as well as Interim Wing Coordinator for Myanmar Delta Alliance Wing.

Figure 2: Myanmar Water Partnership presented his welcome and introduction remarks

In his speech, he introduced the Myanmar Water Partnership that were formed and representing people from governmental institution, non-governmental organization, university, research institution, private company and organization who is trying to promoting a multistakeholders platform in the country. In his speech he also addressed that *"Many deltas, specifically in Asia are very densed with many population reside in the area and mainly focusing on food production, such as in **Ayeyarwady Delta-Myanmar** which producing about 60% of the food production from the whole country"***.** In addition he argued that the delta encounter by adverse effects of climate change and natural resources deterioration such as the mangrove.

Following the welcome and introduction session is opening remarks that was given by **Dr. Khondaker Azharul Haq, the Incoming GWP-SAS Regional Chair**. He claimed that the LDAI

programme that started since a year ago in Bangladesh nowadays has shown an impact. He added *"the most important features from LDAI initiatice is that we do it by ourselves through South-South Cooperation rather than learn from somebody else that will mixed it up and might delivered something that not applicable to us"*. The second phase of LDAi is expected to share all the lesson learned from both Myanmar and Bangladesh with the other delta country in the region.

Learning Delta Asia Initiative Concept and Origin

The next presentation was from **Lal Induruwage the GWP South Asia (GWP-SAS) Regional Coordinator**, presented Learning Delta Asia Initiative concept and origin. The LDAI started in June 2017 with 6 months scoping phase to assess and understanding of challenges and opportunities in the participating countries by sent team of experts to learn from the other country (Myanmar to Bangladesh, vice versa). The second phase of LDAI was prepared of which the Cap-Net and GWP joint effort to place this initiative to meet the capacity development need and demand in the Delta countries. The LDAI objective is to build up an effective SSC learning and innovation Initiative that accompanies rural and urbanizing deltas in better connecting three processes that often unfold in relative isolation:

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

The LDAI use **tailor made learning tools and promote experiential learning** that suited to particular countries and location of the delta. Through these tools, the **knowledge from the practice** will be capitalized and partners will gain direct access to field-tested, innovative solutions and develop the capacities to sustain learning and change in time on the:

1. **Network development**, by acknowledging and bringing together multiple stakeholders through face-to-face activities;
2. **Strengthening of national organizations**, by equipping them with advance knowledge management and knowledge sharing skills;
3. **Documentation and dissemination** of the best practices and innovation.

The first phase developed three documents that are available on the GWP global website. These documents are:

- LDAI Scoping Phase Report: https://www.gwp.org/globalassets/global/gwp-sas_files/ldai/8.1-final--report-scoping-phase-ldai.12-18--17.clean---doc.pdf
- LDAI Myanmar Mission Report: https://www.gwp.org/contentassets/99ab8af8a32f4b449ef9b3d61a5a2147/ldai-myanmar-mission-report.310817-final.pdf
- Bangladesh Mission Report- https://www.gwp.org/contentassets/7cba3c55ba6e43cd96213c93835ca8da/ldai-bangladesh-mission-report_bangladesh-final.pdf

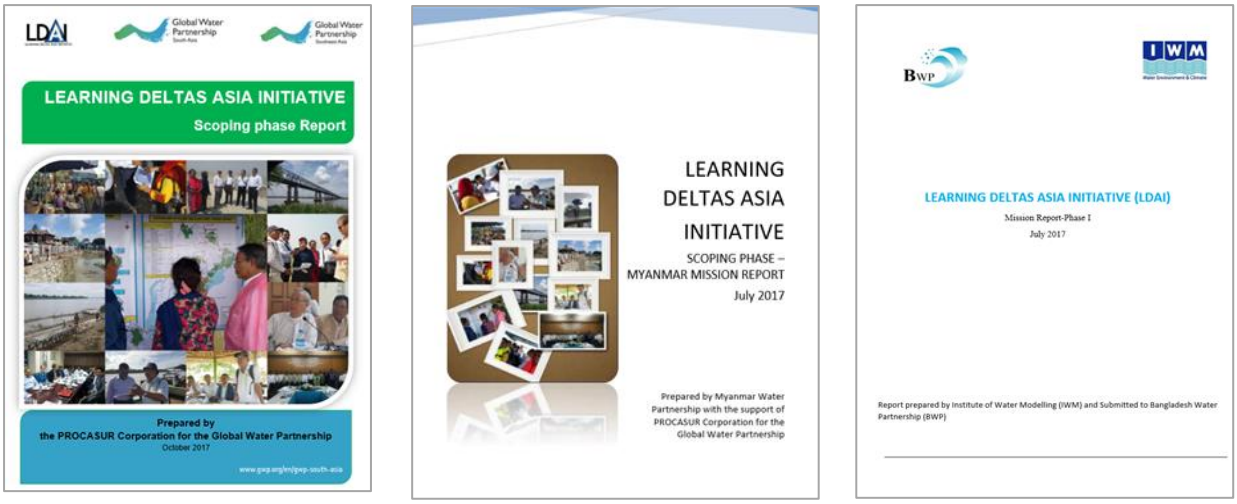

Figure 3: The report covers of the 1st LDAI phase that are available on the GWP's website

LDAI Scoping Phase Presentation on Myanmar Learning Route

Under the session of LDAI scoping phase presentation on Myanmar learning route, Dr. Zaw Lwin Tun was given the floor once again. He explained the pilot phase that initiated by a mission to Bangladesh in February 2017. During this mission, three adaptive delta management (ADM) priority learning areas for both parties were selected, namely: polder management, tidal river management, and integrated water resources management (IWRM) for the costal area and Barind Tract Area (was selected as the learning territory).

In June 2017, the second mission was held in the Myanmar in conjunction with the initiation of the LDAI. The LDAI was designed by the Global Water Partnership Organization (GWPO) as a platform for Myanmar and Bangladesh to promote the exchange of experience and knowledge on development of deltas and filling the knowledge gaps. During this mission, 3 priority learning areas were selected, such as : 1) polder area at Kyet hpa mway zaung polder area; 2) tidal river management at the Nyaung Done Polder; and 3) IWRM in particular: Nyaung Done Town river bank protection works, improvement of river system, Bank protection at Bo Myat Tun Bridge, as well as Mangrove Forest Education Centre. In his final remark, dr. Zaw argued, "*the LDAI is a new way to exlore, planning together which has found interesting by all the participants*".

Figure 4: The participants from the second Mission in Myanmar

LDAI Scoping Phase Presentation on Bangladesh Learning Route

Mr. Abu Saleh Khan - Deputy Executive Director (Operations), Institute of Water Modelling, Bangladesh on his presentation argued that "*Bangladesh has developed many mathematical modelling to analyse many water and environmental problem which can help in negotiating the balance in water management in their region"*.

Figure 5: The Myanmar delegation team during field visit to Bangladesh on June 2017

During the Bangladesh delegation visit to Myanmar, Ayeyarwady Delta was chosen as the site for as it shared the similar problems.

For the tidal river management, it takes more than 40 years to get to current situation, started since 60's with the the coastal embankment project at Southwest Region of Bangladesh. At that time has given many benefits to the agriculture sector. However the regular monitoring and the effects on siltation still was not considered at that time. Later on, in the 80's the indigenous knowledge used by the farmers and together with modelling technique has improved the situation.

For the polder management in Bangladesh, the modelling technique was also applied by taking into the account all the phenomena such as land subsidence. The model also has been used as part of the South-South Cooperation with Malaysia.

As for the way forward, the Bangladesh suggested that the current learning process between Bangladesh and Myanmar can still be carried out on the phase II, as well as involving other delta countries on sharing the best practices.

Key Messages during discussion session

- Cambodia shared the same situation with Myanmar and Bangladesh that considered massive development in the floodplaint considered as the factor that caused floods during the raining season. This support by a study in the Mekong River has shown that the flood happened not only because of climate change related impact, but also because of massive development.
- Cagayan de Oro is one of the 5 major delta city in Philippines, located in Mindanao Island which recently suffered from a trophical cyclone event (Typhoon Washi). Rebuilding the city by considering a 'delta city concept' still was not part of the discussion among the government. At that time, the water utility services was down more than 60% and affected half of the population (+/- 300.000 people).
- Above statement from the Philippines brought up the importance of Delta cities planning to incorporate the fact that they are located in the Delta. So far planning of the cities is done is the business as usual without understanding the meaning of located in the Delta area. This has brought to a notion how does it mean to be a delta city, and how can the LDAI assist this concept development.

- The delta countries is often received the impacts from the upstream country in the transboundary river context, and therefore it is useful to learn from them. For the case of Chao Phraya delta in Thailand, it contribute to 70% of GDP. By linking to the socio economic development, the impacts of climate and water related disasters can give useful information to the policy maker.
- Thailand brought up the importance of adaptive greater management, as Delta usually consist of several cities not just one cities. This will link perfectly with the concept of IWRM. LDAI can help to share and learning about the impacts of climate change and water related disasters on the delta city.
- In China, many deltas have different research instutition and university on the areas. And China are looking forward to learn from other research institution in the Southeast Asia region.
- Learning from the scooping phase of Myanmar and Bangladesh presentations, it is important for new countries to understand the detail steps to conduct the scooping phase, such as who facilitate the scooping phase between the two countries? How each country came to understand what they have on Delta initiatives and decided which initiatives they would like to share? What exactly is being shared and who prepared all the learning materials?
- Definition of Deltas initiatives must be clearly defined to give more clarity to all potential country members. What is the anchor of LDAI? Does it have to be anchored to the river management or something else? Which type of project can be considered as deltas initiatives? How does it link to the adaptive Delta management?

Session 2: How does it belong and where is it heading?

Salient Features of Bangladesh Delta Plan 2100

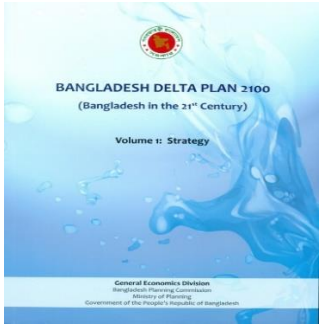

Figure 6: The Bangladesh Delta Plan 2100

Mr. Mohammad Asaduzzaman Sarker from Bangladesh Planning Commission was given an opportunity to deliver a presentation on the Bangladesh Delta Plan 2100. With many challenges and and opportunities, management of the Bangladesh Delta is urgently require an integrated plan. As a result, a robust and flexible strategies are taken to ensure the country's a long vision but still prioritizing a short term '*no regret'* actions under the Bangladesh Delta Plan 2100.

Under the plan, 6 **hotspot**[1] area has been identified which facing risks due to hydrology, climate change and natural hazards. These hotspot areas are: 1) Coastal Zone (27,738 sq km); 2) Barind and Drought Prone Areas (22,848 sq km); 3) Haor and Flash Flood Areas (16,574 sq km); 4) Chattogram Hill Tracts (13,295 sq km); 5) River Systems and Estuaries (35,204 Sq km); and 6) Urban Areas (19,823 sq km).

[1] **Hotspot** is defined as "a place of significant activity or danger". Hotspots are prototypical areas where similar hydrological and climate change vulnerability characteristics and problems converge also influenced by natural hazards.

The remaining area is identified as 'cross cutting' area characterized by a combination of issues and challenges e.g. floods, drought, river bank erosion, sedimentation, groundwater depletion, water pollution and water supply and sanitation.

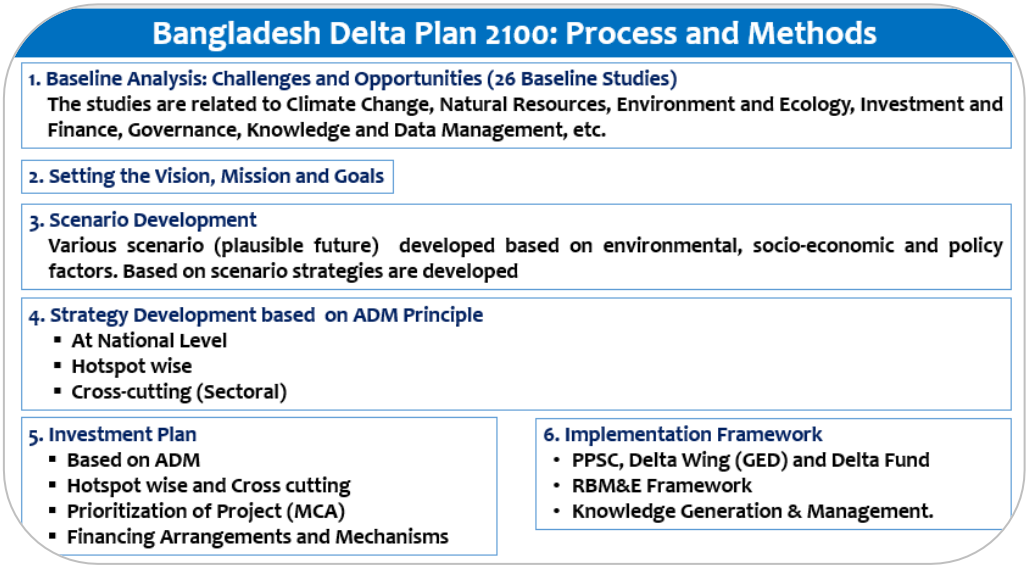

Figure 7: Summary of the Bangladesh Delta Plan 2010 Process and Methods

WWF's work on Asian Deltas, promoting nature based solutions and discussion

On his presentation title "Resilient Asian Deltas", **Marc Goichot the Lead Water WWF Greater Mekong** argued that the region are the most bio-diverse for freshwater[2] and marine species and home to 400 million people. Many researchers found out that the delta areas are sinking faster than sea level rise due to climate change.

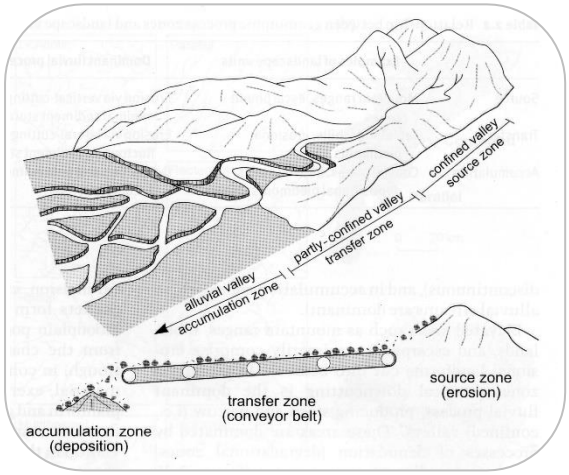

Figure 8: The 3 zones of a fluvial system (Schumm, modified)

in his presentation, a case study from Ayeyarwady River Basin in Myanmar had shown a significant consequence from changes in land use, such as:

- Land use activities altering flow and sediment input: Changing the balance between sediment input and flow will change the river channel shape
- Reduction in destabilise banks & 'starve' deltpeak flows a big risk: Low slope of river makes water height main driver of river energy
- Large increases in sediment input in middle reaches will 'choke' channel increasing flood levels & negative impacts to navigation

[2] i.e. Mekong River Basin is more than 450 fish species and Yangtze host more than 300 fish species

- Local removal of sand & gravel downstream

He added daming the Mekong River Basin has also affecting the sediment transport and the flow and therefore he put emphasize on a nature based infrastructure and valuing the ecosystem on any infrastructure project.

Optimizing Benefits from Regional Cooperation on Trans-boundary Waters: Opportunities for South Asian deltas including source to sea concept

Dr. Khondaker Azharul Haq, Bangladesh Country Water Partnership on his presentation introduced a concept of 'source to sea approach' [Regional Cooperation on Trans-Boundary Waters: Opportunities for South Asian Deltas including Source to Sea Approach]. In his presentation, multiple international water treaty between Bangladesh and neighbouring countries were signed in particular: to improve delta management such as flood control, prevention of river bank erosion, improving navigation, management of silt, ecosystem protection, water pollution prevention, and iproving food security.

At the end of his presentation, source to sea linkages was introduced. The intended outcome of applying the source-to-sea approach and refers to the establishment of governance, operations, practices and finance that increase collaboration and coherence across the source-to-sea system and reduce alteration of key flows (water, pollution, sediment, materials, biota, ecosystem services) resulting in measurable economic, social and environmental improvement across freshwater, coastal, nearshore and marine environments.

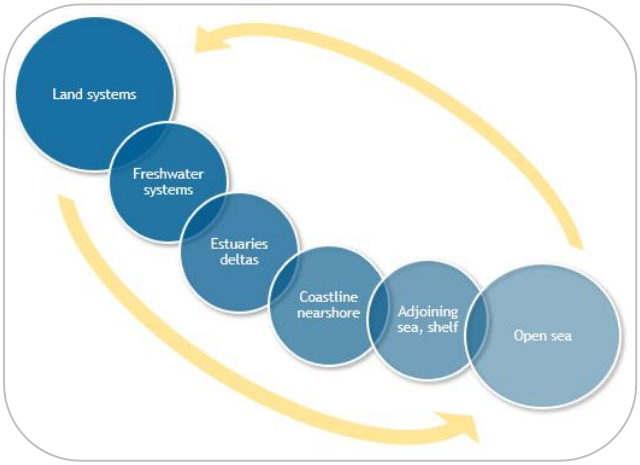

Figure 9: 'source to sea' linkages

LDAI Phase 2 – prospects and plans

Indika Gunawardana, Capacity Development Analyst, Cap-Net UNDP on her presentation give a slight background about the LDAI. The second phase is a continuation from the scoping phase and primarily aims for south-south cooperation and knowledged exchanges.

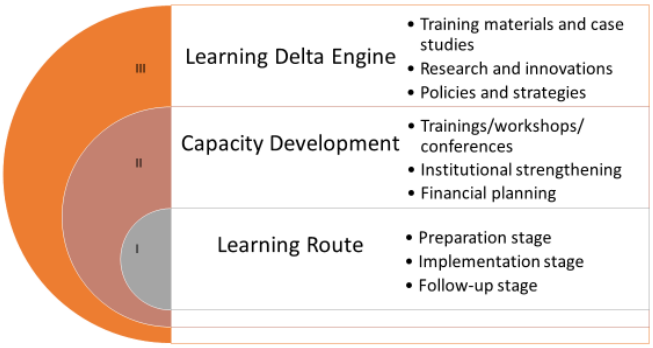

Figure 10: Three Steps in LDAI Phase 2

Three steps in LDAI phase 2 was designed (**Figure 10**). In addition, 5 learning priorities will be chosen, namely: Tidal river management, Polder management, Preparedness for future Climate Change and mitigation measures, Mangrove conservation and management, and Integrated water resources management.

The proposed Organization Structure can be seen at **Figure 11**.

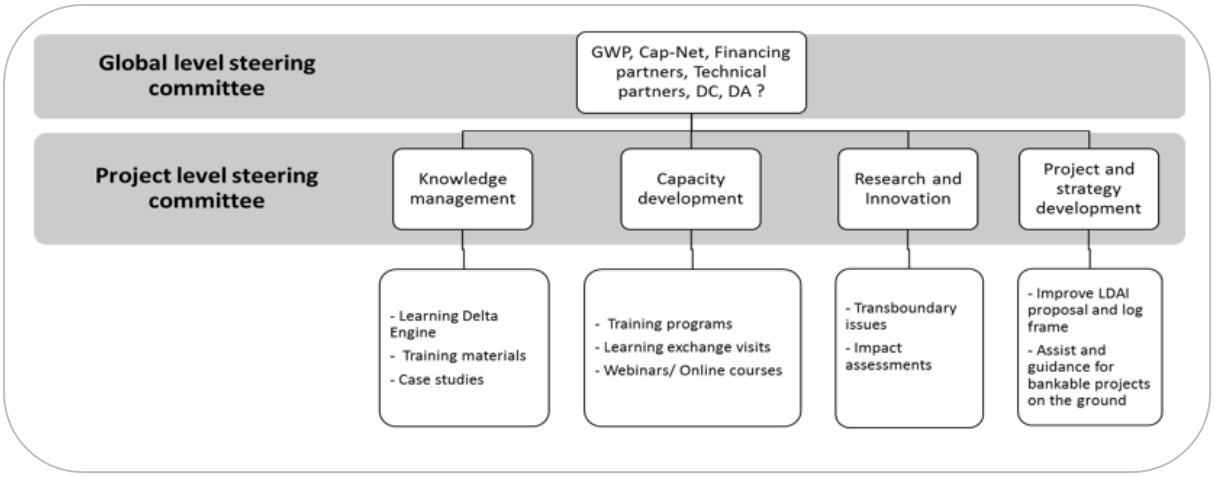

Figure 11: Proposed Organization Structure

Key Messages during discussion session

1. Bangladesh brought up its experience on development of the 100 years Delta development plan and how it has been recognized as part of the national development agenda.
2. Adaptive Delta management is a good initative/concept that can be linked with IWRM and climate change adaptation. LDAI must consider to incorporate the concept of Adaptive Delta Management.
3. Financial is one main issue to facilitate the tailored-made knowledge exchange. A more efficient but still effective design of tailored made knowledge exchanges must be designed through the 2nd phase of LDAI.
4. The range of Delta initiative that were presented was very broad, from river restoration to development of giant sea wall. Some were unsure whether they have presented the right Delta initiative. This shows the definition of the Delta initiative must be revisited in the 2nd phase of LDAI.
5. From WWF Greater Mekong, Marc Goichot emphasize the importance of Delta initiatives to be linked with initiatives at the upstream level. This is to ensure IWRM principles are applied.
6. Marc also reminded the importance of the incorporation of nature based solution in the development of any Delta initiatives. Understanding how nature works should be able to help to find the alternative solutions that will go along how the nature works, which will ensure sustainability of the environment and the Delta initiatives.

Session 3: Enhancing Relevance across the Boundaries

Country overview: Delta related interventions summary from country representatives

Ayeyarwady Delta was selected as a case study from Myanmar. Several delta projects in the area as follows: development of Integrated Ayeyarwady Delta strategy, adoption of adaptive delta management, Establishment of Integrated Agriculture and Irrigation Development Master Plan (EIAIDMP) for Ayeyarwady Delta with financial aid from KOICA, and Project for Irrigation

Development of major grains producing areas in the Ayeyarwady Delta with assistant from Lancang-Mekong Water Cooperation Center.

Delta Related intervensions in Sri Lanka was presented by **Eng. Medhani A. Jayakody (Chief Engineer - Water Resources Planning, Irrigation Department)**. The deltas are rich in biodiversity and facing development and environmental management challenges. A new development approach is being considered by incorporate all the sectors such as agriculture/economy/social/ biodiversity/ ecological & environmental conservation.

In Bangladesh, the delta related intervension was presented by **Dr. Dwijen Mallick, fellow of Bangladesh Centre for Advanced Studies (Cap-Net Bangladesh)**. Several delta intervension were presented such as: adaptive delta management (focus on development and acculturation in Bangladesh and Indonesia); Hydro-social Delta that aims to improve the understanding of flows of water, its impacts on people as well as to improve policies and strategies for disaster risk reduction and sustainable development of delta; mainstreaming gender in water management; Capacity building and advocacy. In addition, a case study on Resilient and Inclusive Dhaka City was chosen.

Philippines presented a case study on Pasig River that recently win an Asia Riverprize award at 21st international River symposium at Sydney – Australia on October 14, 2018. On his presentation, **George Oliver G. De La Rama, the Head of Public Information, Advocacy, and Tourism Division - Pasig River Rehabilitation Commission** explained that in 1990's the river was declared "biologically dead". With 2009 "Biodiversity Assessment of Pasig River and Its Tributaries: Ecosystems Approach (Phase One)", several species of fish, birds, trees and aquatic plants are now living in the river or within its left and right embankment. Through the establishment of Pasic River Rehabilitation Commission and participation from all the stakeholders and communities during the planning and implementation, the river now has been restored to a better condition. A few activities that have been done are: environmental management through waste management and water quality improvement technologies; and multilevel public awareness.

Figure 12: an overviews of the condition before and after the initiative was carried out

.Key Messages during discussion session

1. Aside from the 5 learning priorities, other countries also propose other priorities based on their needs.

2. Out of The 5 learning priorities that came from Myanmar and Bangladesh, 2 are very broad, IWRM and Climate change. These 2 priorities are on a different level compared to the other 3 priorities. These 2 priorities should be considered as priority area rather than the learning priorities that should be more detail.
3. Learning priorities of each country must be discussed with the key stakeholders in the country. Therefore, a focal point is needed to facilitate the discussion of learning priorities and the learning exchange process through LDAI.
4. It is understood that priority of each country is different to one another. However, in this early stage of LDAI, these 5 common priorities can be considered as the binder that will help the collaboration to take off.
5. CWPs of each country is the main focal point to lead the process. Based on each country result, another Inception Workshop should be organized to give shape to the LDAI 2nd phase. The next meeting of Delta coalition should be a good event to put everyone together again in a side event.

Second Day of the Workshop

Session 4: Learning Delta Engine for Phase 2 and steering it

Recap from First Day

The recap from the first day is shown at **Figure 12**.

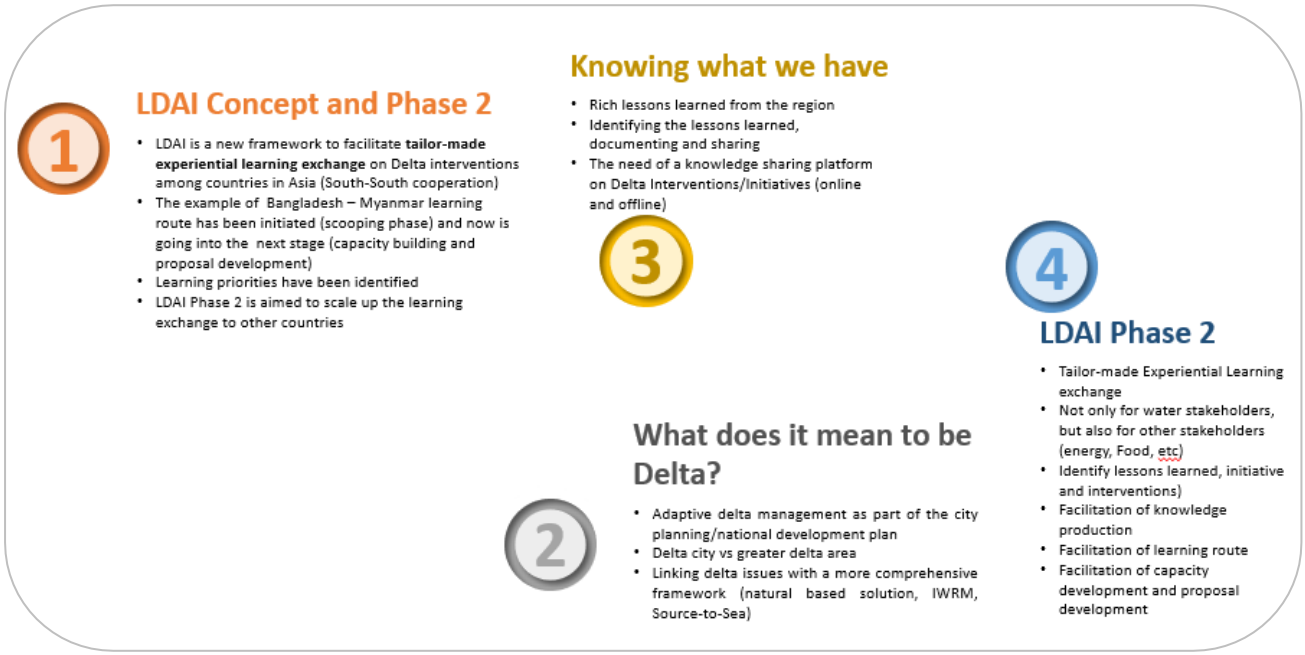

Figure 13: Day-1 Recap

Additional reflection: Scientific-based knowledge (tools, research); Regional and International cooperation; Offline forum of knowledge exchange; Focal point of LDAI.

Brainstorming activity "How does LDAI collaborate in-line with national planning and development agendas?"

During this session, Indika from Cap-Net led the discussion and key messages are given below.

Key Messages during discussion session

- China delegations reminded all participants that it is important to know what each country have in term of Delta initiatives. This will make the exchange possible. China has a lot of experience in Delta management initiatives.
- It was agreed that an on-line knowledge exchange platform to be developed. However, learning from Cap-Net Bangladesh experience, there are some technicalities that needs to be carefully thought through. For example, who should manage the platform? Does each country need to have it or can it be a regional platform? Etc.
- Knowledge expert committee should be appointed at a later stage to safe guard the quality of the platform.
- Steering Committee will be discussed at a later stage after the design has a bit more clarity.
- It would be good if the Delta coalition country members can support the LDAI as its knowledge exchange engine.

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