



# **Report on Regional Training Workshop**

## **Challenges and Approaches in Delta Planning and Management**

### **Sharing experiences from SE Asian Deltas and the Rhine-Meuse Delta**

**19-23 October 2014**

**The Center for Environmental and Geographic Information Services (CEGIS),  
Dhaka, Bangladesh**

Organised by UNESCO-IHE, Wageningen UR, CEGIS Bangladesh, Vietnam National University – Center for Water Management and Climate Change.

In collaboration with Partner institutes, Delta Alliance and Asian-Dutch delta projects.

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UNESCO-IHE  
Institute for Water Education



ALTERRA  
WAGENINGEN UR

CEGIS





*Official Opening of the training workshop*

## Table of Contents

1. Background .....	4
2. Objectives of the training workshop .....	4
3. Participants .....	6
4. Programme and outcomes of discussions .....	7
4.1 'Introduction training workshop and deltas represented' (Day 1; Sunday 19 October) .....	8
4.2 'Adaptive delta planning approaches' (Day 2; Monday 20 October).....	10
4.3 'Solution scenarios, strategies and actor analysis ' (Day 3; Tuesday 21 October) .....	13
4.4 'Planning exercise' (Day 4; Wednesday 22 October).....	16
4.5 'Planning exercise and field visit' (Day 5; Thursday 23 October).....	18
5. Logistics.....	19
6. Summary training workshop outcomes .....	20
7. Evaluation of training workshop.....	20
8. Donors.....	24
Supporting networks and partnerships.....	24

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Annexes are presented in a separate document.

## 1. Background

River delta's, like the Mekong Delta (Vietnam), Ganges-Brahmaputra Delta (Bangladesh), Ayeyarwady Delta (Myanmar), and Ciliwung Delta (Indonesia) are developing rapidly and are characterised by large-scale urbanisation and industrialization processes. They are facing serious planning challenges related to issues like economic development, population growth, vulnerability to flooding, and food security. These challenges occur in a context of regional and global changes including upstream developments and climate change. The Mekong Delta, Ganges-Brahmaputra Delta and the Ciliwung Delta are for instance the largest areas to suffer the severe impacts of climate change due to their low elevation, high population density and high dependency of local settlers on agriculture and aquaculture.

There is much to learn from people in these deltas who always have lived with floods, droughts, typhoons, and who have developed many adaptation strategies to deal with such risks over the centuries. But, addressing and resolving these complex planning issues require planning approaches and methods which are process oriented, oversee the problems, create solutions from an integral perspective, and involve stakeholders to make use of current practices and experiences. An 'integral perspective' is required to address multi-level interests (local, delta, (inter-)national) as well as interests of different sectors in which key stakeholders are being part of the delta system. Such a planning approach is often seen as preferred, but in many countries it is challenging as the planning history is often sectoral orientated with limited stakeholder participation, information and tools are often fragmentised with limited sharing, and capacities to undertake and absorb such a planning process is often not well developed yet.

There is an emerging need to exchange experiences between professionals involved in various aspects of delta planning and to discuss different planning approaches and methods and their feasibility in specific local contexts. This was also clearly demonstrated and articulated in the Delta planning Training Workshop 2012 in Ho Chi Ming City (Box 1) as well as in the Delta planning Training Workshop 2013 in Yangon.

The Mekong Delta, Ganges-Meghna-Brahmaputra Delta and Ciliwung Delta are focus areas of Water Mondiaal, the international chapter of the Netherlands Water Policy. The Water Mondiaal cooperation aims at the establishment or broadening of sustainable relations between organizations including companies in the Netherlands water sector and those in the delta countries.

## 2. Objectives of the training workshop

The aim of the training workshop was to bring together professionals from river deltas like the Mekong Delta, Ganges-Brahmaputra Delta, Ayeyarwady Delta, and Ciliwung Delta who play / or will play key roles in delta planning and make them aware of different types of

planning approaches, identify feasible approaches and methods given the local contexts and share experiences including those from the Netherlands.

More specifically during the training workshop the 34 participants, selected from over 80 applicants, were focusing on the following activities:

- To expose participants to the latest thinking of delta planning with specific focus on environmental and social aspects and placed in a development context;
- To familiarise participants with the multi-level and multi-sectoral dimension of the topic - also by sharing the experiences of the participants from different backgrounds - with specific focus on rural/coastal and urban case studies.
- To familiarise participants with approaches how to address these multiple dimensions - also considering uncertainty - and (institutional) conditions for implementing such approaches.
- To present, practice and discuss examples of approaches and methods of delta planning by means of European and Asian case studies; and
- To provide a Forum / Community of Practice for knowledge networking between participants, and between participants and resources persons of the institutes involved.

#### Concept of the Regional Delta Planning and Management Training Workshops

In October 2012 the training workshop 'Challenges and Approaches in River Delta Planning: Sharing experiences from SE Asian Deltas and the Rhine-Meuse Delta' was held at the Centre of Water Management and Climate Change (WACC) at Vietnam National University, Ho Chi Minh City, Vietnam. In October 2013 a similar training workshop was held in Yangon, Myanmar. These training workshops were organized by UNESCO-IHE, Wageningen UR, Vietnam National University (2012) and Myanmar Maritime University (2013). The participants, many of them alumni from UNESCO-IHE and Wageningen UR were refreshed and shared experiences in different key areas of delta planning and management. According to the participants, the training workshop did live up to their expectations, in particular the south-south learning aspect was much appreciated. The participants strongly expressed their wish that this training workshop was to be repeated in the future in a different host country with different key delta issues. In a similar way we also received very positive responses from the Royal Netherlands Embassy, the Dutch experts involved in the Mekong Delta Plan and the Dutch business community. Based on these responses the idea came up to organise a yearly training workshop on 'delta planning and management', each year addressing different subjects.

The programme committee of the delta planning and management training workshops:

- Ho Long Phi - Center for Water Management and Climate Change of Vietnam National University, Vietnam
- Malik Fida Abdullah Khan - CEGIS, Bangladesh
- Henk Wösten - Wageningen UR, the Netherlands
- Wim Douven - UNESCO-IHE, the Netherlands





*Participants engaged in a group discussion*

### **3. Participants**

#### **Participants Profile**

Participants of the training workshop were mid to high level professionals from the Mekong Delta (Vietnam), Ganges-Brahmaputra Delta (Bangladesh), Ayeyarwady Delta (Myanmar), the Ciliwung Delta (Indonesia), and the Rhine-Meuse Delta who play / or will play key roles in delta planning. Not all participants were nationals from these countries, but did work in these deltas. Participants had backgrounds from civil engineering, water and land management, rural planning, urban and regional planning to water governance, and work in both (international) public, non-governmental, and private sectors. In particular alumni of UNESCO-IHE and Wageningen UR who are currently working in the field of the training workshop subject were encouraged to apply for this training workshop. Out of the 80 applications 20 IHE alumni and 9 WUR alumni applied. Out of the 34 participants were 5 UNESCO-IHE / 5 WUR alumni. Female participants were strongly encouraged to apply; in total 8 out of the 34 participants were female. In total 21 women applied, but due to other selection criteria (like distribution over regions, and professional backgrounds). More information about the participants is presented in Annex 2.

*Distribution participants by country, gender, organization and Dutch alumni.*

Country	Participants	Female	Government	Private	Research/ Education	Other	Alumni
Bangladesh	17	3	5	5	5	2	3
Indonesia	4	3	3	1			3
Myanmar	6	0	4	2			1
Vietnam	5	2	1	2	2		1
Pakistan	1	0			1		1
The Netherlands	1	0				1	1
Total	34	8	13	10	8	3	10

## Facilitators

Overall facilitation of the training workshop:

- Dr. Wim Douven (UNESCO-IHE) expert in the field of Integrated River Basin Management
- Dr. Jaap Evers (UNESCO-IHE) expert in the field of River Basin Governance
- Dr. Henk Wösten (Alterra – Wageningen UR) expert in the field of Soil and Water
- Ir. Catharina Terwisscha van Scheltinga Director Wageningen Project Office Dhaka, expert in the Climate Change Adaptation, (Dhaka, Bangladesh)
- Malik Fida Abdullah Khan, Director of the Climate Change Study Division of CEGIS (Dhaka, Bangladesh)
- Dr. Ho Long Phi Director of the Center of Water Management and Climate Change (WACC), Viet Nam National University HCMC (VNU-HCM), and chair/member HCMC Steering Centre of Flood Control.

## 4. Programme and outcomes of discussions

The training workshop offered a balanced combination of interactive lectures, case studies, field visit, group assignments and discussions. The exchange of experiences between delta's was facilitated through case study presentations and participant's discussions. A fieldtrip was introduced to expose participants to practice on the ground and was an integral part of the training workshop. The training workshop was roughly divided into five inter-related parts:

1. Introduction training workshop and deltas represented (Day 1)
2. Adaptive delta planning approaches (Day 2)
3. Solution strategies, actor analysis (Day 3)
4. Planning exercise (Day 4)
5. Planning exercise and field trip (Day 5)

The five parts will be further outlined below. The schedule of the training workshop is presented in Annex 1 and 3. The training material is presented in Annex 4, and working session outcomes in Annex 5. The daily recapitulations are presented in Annex 6.

#### 4.1 'Introduction training workshop and deltas represented' (Day 1; Sunday 19 October)

The workshop was opened by the Water Resource Minister Barrister Anisul Islam as shown in the photo below. Both the minister as well as the other speakers during the opening ceremony stressed the need for a Bangladesh Delta plan for better water resource management.



*Official Opening of the training workshop by (from left to right) Engr. Md Waji Ullah (Executive Director of CEGIS), Martine van Hoogstraten (Charge d'Affaires of the Netherlands Embassy), Zafar Ahmed Khan (Water Resource Secretary), Barrister Anisul Islam Mahmud (Water Resource Minister), Muhammad Nazrul Islam (State Minister for Water Resource), Wim Douven (UNESCO – IHE).*



*The New Nation published the following article on the official opening of the training workshop.*

**The New Nation** Independent Daily

Dhaka Monday, October 20, 2014, Kerk 5, 1421(BS) Zinaj 24, 1435 H, Page No. Da 110~ www.thedailynation.com, 16 Pages ~Tak

## Delta plan needed for better water resource management: Anisul

**BSS, Dhaka**

Water Resource Minister Barrister Anisul Islam Mahmud Sunday said the country needed to formulate a delta plan aimed at dealing with water resource management in coordinated manner through incorporating all necessary development aspects.

"We need a good regional cooperation for a sustainable water resource management. Delta Plan should be prepared by considering the issue of regional cooperation," he told a training workshop on "Delta Planning and Management" at the Spectra Convention Centre here.

State Minister for Water Resource Muhammad Nazrul Islam, Bir Protik, Charge

'd Affaires of Netherlands Embassy in Dhaka Martine Van Hoogstraten, Executive Director of Center for Environment and geographic Information Services(CEGIS) Engr. Md Waji Ullah and Deputy Executive Director of CEGIS Dr Maminul Haque Sarker, among others, addressed the inaugural session of the workshop with Water Resource Secretary Dr Zafar Ahmed Khan in the chair.

Anisul said, "Water is central to the life and culture of Bangladesh. People of the country suffer both from flood and riverbank erosion in almost every year due its geographical character."

He said water related problems and challenges are becoming more complex for Bangladesh as

consequences of climate change are likely to hit the whole water resources sector.

Anisul said, "We need an integrated water resources management to deal adverse impact of climate change and complex river morphology systems to ensure sustainable development in the country."

Dr Maminul said, "We can follow the Delta Plan of Netherlands to prepare the Bangladesh Delta Plan-2100 as there are some similarities between the countries on the field of water resources sector."

The 100-year long delta plan will help Bangladesh to manage water resources sector effectively, which will ensure water safety, food security as well as sustained economic growth, he added.

In the afternoon the workshop participants presented themselves highlighting their backgrounds, their interest in delta management and their expectation with respect to the workshop. Next issues and challenges were presented by participants on the Mekong, Ciliwung, Ayeyarwady, and Rhine-Meuse deltas. The purpose of the presentations was to bring the group to a common level of understanding of the main issues and challenges of each of the delta's represented and the planning approaches and methods applied.



*Presentation by a workshop participant*

## **4.2 'Adaptive delta planning approaches' (Day 2; Monday 20 October)**

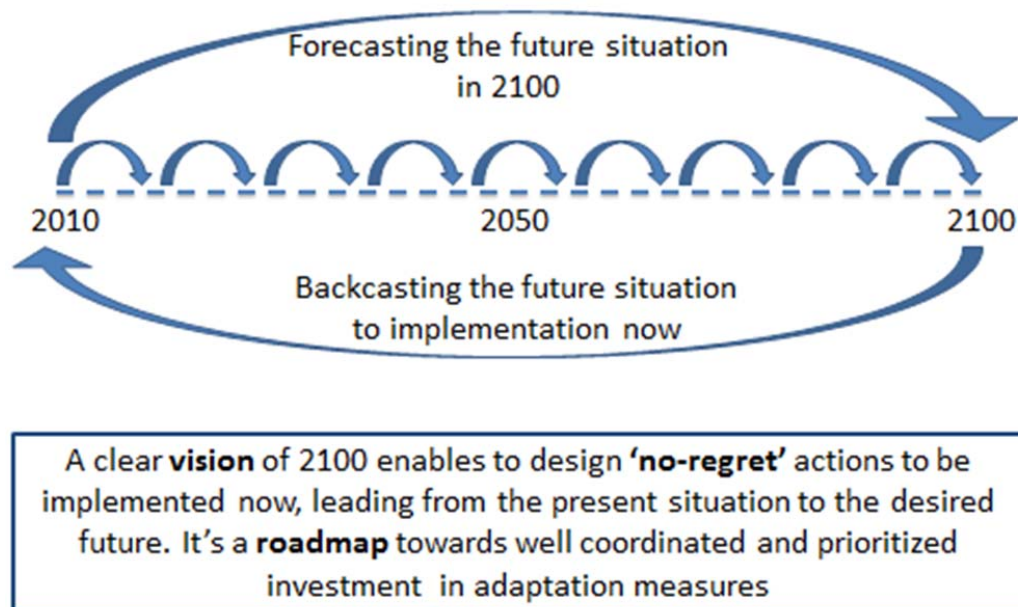
The second day starts with an overview of planning approaches and methods based on international experience, including:

- Delta planning challenges and overview of approaches and methods.
- Key elements of planning process: system and problem understanding, vision development, identification of scenarios, identification of strategies, evaluation and implementation, use of tools. Plus examples of Delta scenario developments.
- Climate change adaptation concepts and approaches.
- Institutional and governance dimension including stakeholder participation.

In a first presentation the concept of adaptive delta planning is discussed as illustrated below.

## Adaptive Delta Planning

*Combining long term vision with short term measures*



Next the development of Biophysical and Socio-economic Scenarios for long term delta plans was introduced. After lunch participants did a stock taking of pressing issues in their delta's. This resulted in the following list of issues.

1. Trans-boundary issues (table 1)
2. Water quantity (table 2)
3. Planning to implementation (table 3)
4. Communication (table 4)
5. Social Aspects (table 5)
6. Land Use Change (table 6)

The issues were discussed within groups and possible solutions were formulated. With respect to issue 4. Communication the group formulated and presented the following challenges, possible solutions as well as tools.

Challenges	Possible scenarios to solutions	Tools
<ul style="list-style-type: none"> <li>Filling gaps among different actors</li> </ul>	Bringing different stakeholders at the same space	Workshops, seminars, round-tables, knowledge hub, posters, brochures, libraries, phone calls, expert panels, watch dogs, civil society organization (CSOs), reporting, Art, film and other cultural events,
<ul style="list-style-type: none"> <li>Filtering the information</li> </ul>	Information linking among actors	
<ul style="list-style-type: none"> <li>Trust building</li> </ul>	Use already accepted interests/events to bring people together	
<ul style="list-style-type: none"> <li>Addressing diversity of views</li> </ul>	Incentive (not only economic) to use technology positively and constructively	Neutral Dialogue sessions, public debate, a special mechanical device, central information hub,
<ul style="list-style-type: none"> <li>Information acts</li> </ul>	Civil society & mass public opinion generation & promote best practice	



### 4.3 'Solution scenarios, strategies and actor analysis ' (Day 3; Tuesday 21 October)

The group presentation was continued on possible solutions for items on the list of issues as identified the previous day.



#### *Group exercise*

Next the principles of the MOTA (Motivations and Abilities) analysis were introduced and participants worked on a case study by taking different stakeholders perspectives. Participants enjoyed the group work as it allowed active participation. Presentations were of good quality and discussions were lively.

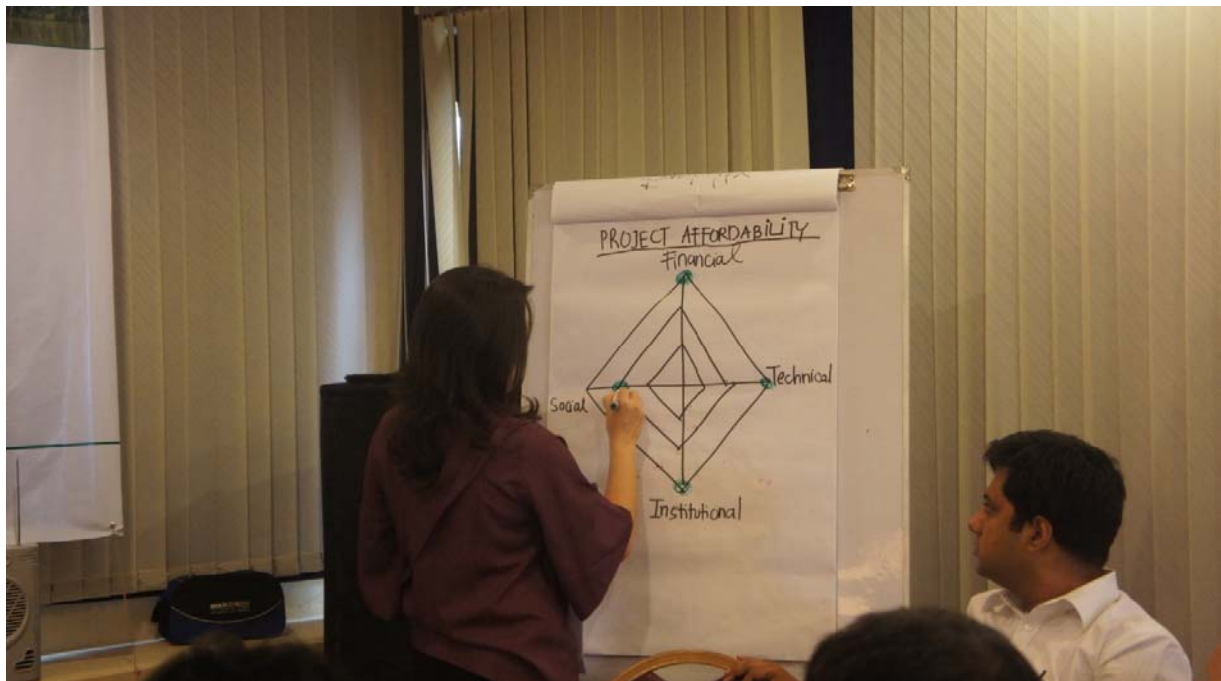
Next the MOTA approach was introduced and applied which takes a stakeholder perspective on delta development. It was illustrative to see that different stakeholders such as farmers, scientists, citizens and policy makers due to their different interests, have quite different preferences for different scenarios. MOTA proved to be a useful tool to illustrate these preferences.



- 4 tables  
Every table represents 1 Stakeholder
  - Government (G)
  - Think tank (T)
  - Business (B) / Reservoir operator
  - Citizen (C) (downstream of the reservoir)
- At the end of this session the government presents its analysis

In between the group exercises presentations were given on among others Developing Strategies for Adaptive Delta Management in the Face of Climate Change. This is a project of the Government of Bangladesh General Economic Division (GED) Planning Commission and the Government of the Netherlands Embassy of Kingdom of The Netherlands (EKN) with the following challenges:

- ☉ Facing water resources problems, related issues e.g. climate change
- ☉ Need for long term holistic vision / strategy / plan / investments for better future water and land management
- ☉ Institutional and governance setting, making BDP 2100 approach possible and implementable



*Participant develops a MOTA feasibility diagram for an early warning system for floods*

Financial arrangements of delta plans were highlighted and discussed in two presentations: one from the ADB in Indonesia and the KfW Development Bank in Bangladesh. The latter is engaged in the following activities:

- **We advise** the German Government and our partners on development policy issues and on implementing their country and priority area strategies.
- **We participate** in the selection and preparation of projects.
- **We conduct** the appraisal of projects.
- We **assist** our partners in the implementation of **their** projects and programmes.
- **We share responsibility** for their developmental success.
- **We supervise** the effective and efficient use of the funds provided.

These presentations of the financial institutions provided valuable contributions in the discussions about financial abilities of the delta governments in implementing large delta plans (this issue was also very clear during the MOTA exercise).

#### 4.4 'Planning exercise' (Day 4; Wednesday 22 October)

The Wednesday was devoted to a planning exercise with the following characteristics:

The Minister of a delta country wants a solution for the issue at stake (shopping list), she is angry as a solution is not coming (the planning process already takes years; and people are complaining). The minister wants to learn from other deltas in the region. The minister would like to know.

- What can we learn from planning processes and solutions in the other deltas on dealing with this issue?
- Based on these lessons from the various deltas in the advisory team and insights from the planning workshop
  1. What will your advice to the minister be on how to design a planning process to address and resolve the issue? (Long term planning and short term implementation)
  2. What are possible implementation strategies (think of feasibility of implementation)?

The minister has little time and wants the advisory team to present in 10 minutes its advice to the minister tomorrow morning on a flip-over (no PowerPoint)

In the planning exercise two issues need to be selected.

Choose from the “shopping list” two issues that your group finds to have the highest priority

Shopping list:

1. Shrimp farming Vs Agriculture
2. Flood risk management
3. Damming and downstream local livelihoods
4. Urban groundwater management
5. Salinization and salt water intrusion
6. Water quality
7. Rural emigration and urbanization



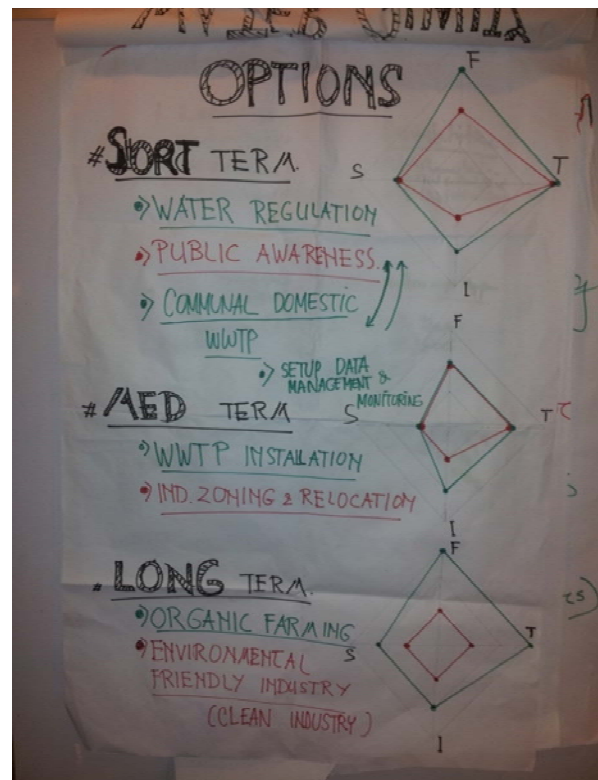
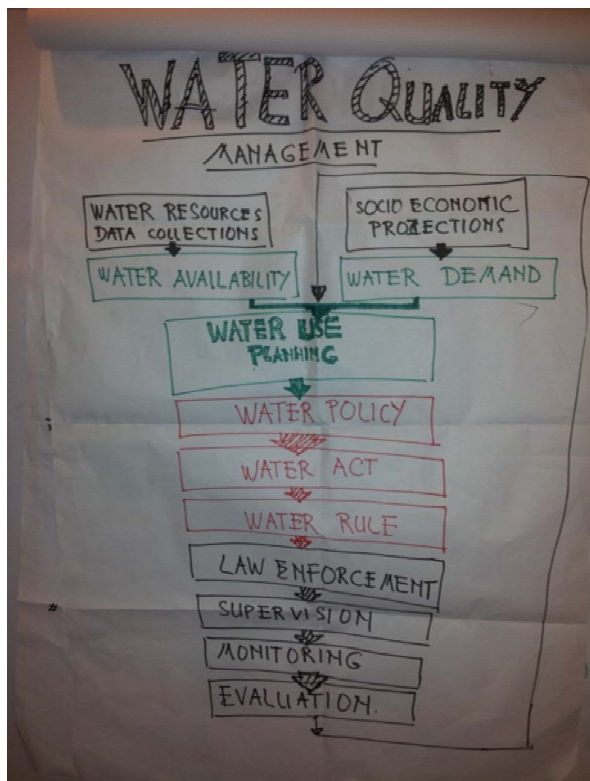
### *Group Shrimp farming Vs Agriculture*

The group work was interchanged with presentations on:

- Ecosystems for life: a Bangladesh – India initiative
- Geo-morphological development of the Bangladesh Delta
- Governance and institutions for the Bangladesh Delta Plan 2100
- Mekong Delta Plan: towards a prosperous and sustainable future for the delta

#### 4.5 'Planning exercise and field visit' (Day 5; Thursday 23 October)

The last day of the training workshop started with the presentation of the outcomes of the working groups sessions on Wednesday. Groups representing four deltas presented their findings followed by lively and interesting discussions.



*Outcome of the planning exercise of the Water Quality group*

The main points discussed were related to:

- Solution strategies
  - What are differences / similarities between delta's?
  - What method of strategy development works best?
- Solution strategies at delta scale
  - What are possible issues between strategies?
  - What are opportunities for cooperation (e.g. benefit sharing)?
- Conditions for implementation
  - How to create cooperation?
  - What are the main bottlenecks in enabling conditions?



The need to provide a Forum / Community of Practice for knowledge networking between participants, and between participants, regional and international partners were explored and ways of organizing such a Forum / Community of Practice. The role Delta Alliance can play in this was highlighted. In general the training workshop was much appreciated and most felt the need to continue this type of activities.

This was followed by the closing of the training workshop and handing over of the certificates.

## **5. Logistics**

The workshop was held at Hotel Orchard Suites in Dhaka which offered excellent facilities.

## 6. Summary training workshop outcomes

The training workshop consisted of a balanced mix of lectures on specific delta topics, work on group assignments, group and plenary discussions, and group presentations. Due to high professional level of the participants the discussions often reached the level of a policy dialogue among equals rather than a learning exercise for interested outsiders. Besides technical aspects such as for instance salt intrusion and sea level rise, ample emphasis was also on institutional arrangements and political will as a prerequisite for successful delta planning. A characteristic of this workshop was the direct South – South exchange on objectives and challenges in delta planning taking into account similarities and differences among deltas in SE Asia.

Different possible solutions have been developed for identified major delta challenges. A MOTA technique was used to evaluate the developed strategies in terms of their effectiveness, economic costs, side-effects, flexibility and acceptance. Participants appreciated the training workshop which they attributed to the attractive format of the workshop, the high professional level of the participants, the excellent quality of the facilitators and the friendly atmosphere created by the Bangladesh host. The participants expressed their wish that this training workshop which was now held for the second consecutive year will be repeated in the future in a different host country with different key delta issues. Outcomes include:

- 34 mid-level professionals including UNESCO-IHE and WUR alumni trained in area of Delta Planning;
- 34 mid-level professionals working in / related to / interested in Delta Planning shared experiences and established an initial network with ideas for future cooperation, like next training, etc..;
- High level of exchange of ideas and possibilities of delta planning among South – South participants;
- 1 week curriculum on Delta Planning developed, tested and shared with participants.

## 7. Evaluation of training workshop

On the last day an evaluation session was organized. Before all participants were asked to anonymously evaluate the workshop. A plenary discussion was held. During this session several participants expressed their ideas and opinions. In the discussion the workshop was highly valued by the participant. One issue that was shared by several participants was the remark that in a next workshop, participants would like to focus more on the approaches of delta planning, rather than on the challenges of delta planning. Another issue addressed was more focus on network development (the Delta Alliance could play a more prominent role here in future).

After this discussion the participants were asked to anonymously address the following 4 questions:

- What did you find most interesting?
- What are points for improvement?
- What subjects were missing?
- On a scale from 1 (very poor) to 5 (very good), what score do you give this workshop?

A full overview of these answers are provided in the Annexes, but the main issues that the participants found most interesting were: the sharing of experiences from other deltas, the MOTA exercise, and meeting new people from different deltas.

The main points for improvement were considered to be more focus on approaches and tools for delta planning, better time management, and more field visits (develop an exercise around the field visit).

The subject that were found missing include: the role of the private sector and public-private-partnerships, and models and tools for planning.

On average the workshop was scored 3.76 by the participants.

Four participants from various delta regions were asked to write something about their experience of the workshop. These are presented below.

*Box 1. Workshop experience ms. Shahnoor Hasan, Bangladesh.*

The regional training workshop on delta planning and management 2014 would remain as a unique knowledge sharing expedition to me. Not only had the shared experience of participants helped to have an in depth insights, but also the training provided a platform to build up a strong network on regional delta planning and management. Participants build a rapport through analysis of case studies with application of *MOTA* and through role playing approach. The common challenges and experiences of delta planning and management connected the participants effectively during the five day training. The program came to an end with a fun filled river cruise. During the cruise, participants were found busy planning on future collaborations across the deltas.

*Box 2. Workshop experience mr Kyaw Lin Htet Myanmar.*

It was a great pleasure to meet the professionals from the Netherlands, Bangladesh, Vietnam, Indonesia and Pakistan. The presence and giving speech of the Honorable Minister of Water Resources from Bangladesh showed the great interest of Bangladesh on Delta Planning and Management. It was interesting to see presentations from each country and ask questions of the problems. We had a good brain storming section when we were assigned to do the group discussion especially MOTA. It was fun to listen to presentation made by Government Group and ask the questions to them from Business, Citizen and Think-tank groups. During the discussion, we learnt from each other what the challenges are in delta planning and management in different countries. The common challenges I found out from each country was lack of cooperation between the Government Ministries, Law Enforcement, and Public Participation. They are challenges but we must overcome them in order to plan better for the people.

Having seen cultural show on the boat, the environment along the river and being stuck in the traffic jam way back to the hotel from the river on the final day of workshop was unforgettable memory. The funny thing but on the other hand, it may not be lucky thing was the ship intended to be rented for the participants to sail along the river was burnt a week ago because of accident. We were lucky enough.

All participants were very friendly and easy to open and share the experience and challenges. Most of participants from Vietnam, Indonesia, Myanmar and Bangladesh become friends on social network like facebook in order to keep in touch in the future. The hospitality of Bangladeshi by bringing the whole group of participants around Dhaka downtown area before welcome dinner on second day of workshop is duly noted. And last but not least CEGIS showed its great effort to organize the workshop successfully together with Dutch Professions. A big thanks must go to CEGIS and Dutch Professions and hopefully to see all again in next year workshop

*Box 3. Workshop experience mr. Thuy Linh, Vietnam.*

The regional training workshop held in Dhaka was such a great chance for me to know and learn about our companions across the Asian Deltas as well as fellows from the Netherlands. I have found that we all share common challenges in the process of delta planning and implementation, i.e. water pollution causing by urbanization, conflicts between rice and shrimp farming at coastal areas. Although the sessions were arranged nicely into sectors of management (i.e. financing, governance, communication, etc.), I am afraid the limited time that the participants could not talk more and exchange theirs research and self-concerns. Gratefully I enjoyed during five days in Dhaka including the food, our international friends though I still feel sorry for the people struggling with the livelihood at the brickyards along the river and on the rickshaws.

*Box 4. Workshop experience mr Bambang, Indonesia.*

It was a great pleasure for me to attend the training workshop on delta planning and management held in Dhaka, Bangladesh on 19-23 October 2014. This workshop gave me an excellent opportunity to learn the updated concepts, approaches and practical experiences regarding delta management from different countries, i.e. the Netherlands, Bangladesh, Myanmar and Vietnam. Furthermore I received valuable knowledge from the presentations delivered by experts and country participants on adaptive management notion, bio-physical and socio economic scenarios, major issues and challenges in the implementation of delta plan, and the management of long term planning such as the Bangladesh Delta Plan 2100.

I enjoyed very much group assignments arranged for this workshop and the chosen topics represented problems we face in the present situation. We had live presentations and discussion at the moment. During the group working session I was really interested to apply a MOTA analysis in which we might evaluate the feasibility and affordability of our flood management project by creating graphs. The participatory process to make a group consensus was very interesting as well. With the academic background from social science I saw that it was also a good point to incorporate social aspect together with financial, technical and institutional ones for deciding the status of the 'on-going options' from the exercise. .

Another story is about cultural program. I had a chance to spend my time knowing local Bangladesh matters a bit closer. It was unforgettable one when we visited Aroong shop and I bought few traditional souvenirs and clothes. Eating Kebab at the restaurant nearby the workshop venue was also a nice experience. In addition to that during the boat cruise time I was entertained by cultural performance of local singers accompanied by their traditional music instruments.

My special thanks go to local CEGIS staff for giving me lots of assistance during the training week. I wish to thank facilitators and colleagues from various delta countries for their stimulating interactions, discussions and sharing experience. Finally I would like to extend my sincere gratitude to CEGIS, UNESCO-IHE and Alterra Wageningen UR who organised and granted me to participate this five day training workshop. I am pretty sure that knowledge gained from the workshop will strengthen my conceptual understanding personally on delta planning. These also will fulfil my professional task as a university expert in which I serve the provincial and district governments in Indonesia for developing their coastal zone management plans for the next 20 years.



## 8. Donors

Main donors of the training workshop were:

- Dutch Ministry of Infrastructure and the Environment (I&M),
- Dutch Ministry of Economic Affairs, (EZ),

Few participants were funded by NICHE VNM 106 (HWRU), and NICHE VNM 155 (BUET, CEGIS, WARPO).

## Supporting networks and partnerships

### **UNESCO-IHE Global Partnership for Water Education and Research**

The UNESCO-IHE Global Partnership for Water Education and Research is a global coalition of knowledge centers with the mission to build capacity for the sustainable management of water and environmental resources and delivery of water and sanitation services. The Partnership was founded in November 2002 with the signing of the Partnership Charter. In 2008, the Partnership counts 18 member institutions from 15 countries and over 40 affiliated MOU partners. The Partnership operates in the context of the UNESCO-IHE Institute for Water Education, as an important mechanism for the institute to fulfill its functions. Worldwide, the partners turn out 1,000 post graduate students in 45 master programs, 3,000 participants in short courses and reach over 500 decision makers through seminars and networks. Together the partners have an extensive portfolio of research projects and PhD degrees. The partners are actively involved in water sector related networks and provide professional services.

[www.unesco-ihe.org/Networks-Partnerships/UNESCO-IHE-Global-Partnership-for-Water-Education-and-Research](http://www.unesco-ihe.org/Networks-Partnerships/UNESCO-IHE-Global-Partnership-for-Water-Education-and-Research)



## **Delta Alliance**

Delta Alliance is an international network devoted to finding successful responses to present and future challenges of delta-regions worldwide. Deltas belong to the most valuable but also to the most vulnerable areas in the world. With increasing pressure from population growth, industrialization, and changing climate, it is more important than ever that these regions increase their resilience to changing conditions. Delta Alliance brings people together who live and work in deltas. They can benefit from each other's experience and thereby contribute to an increased resilience of their delta region.

Delta Alliance consists currently of a network of 11 so-called Wings in the following Deltas: Mekong (Vietnam), Ganges-Brahmaputra-Meghna (Bangladesh), Ciliwung and Mahakam (Indonesia), Yangtze (China), Pantanal (Brazil), Zambezi (Mozambique), Parana (Argentina), Rhine-Meuse (Netherlands), Nile (Egypt), San Joaquin and Sacramento (USA-California) and Mississippi (USA-Louisiana). Also other deltas have shown interest to join.

[www.delta-alliance.org](http://www.delta-alliance.org)

The logo for Delta Alliance features the word "Delta" in white and "Alliance" in blue, set against a green background with a subtle pattern of water ripples or a map of delta regions.

**Delta Alliance**