

CASE STUDY

TOWARDS A BANGLADESH DELTA PLAN: *exploring the field*

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■ On the request of the Government of Bangladesh, a 'Bangladesh Delta Plan Preparatory Team' (DPT) was fielded from July 2011 to June 2012 by the Embassy of the Kingdom of the Netherlands (EKN) in Dhaka. The DPT consisted of a core team of 4 Bangladeshi and 3 Dutch experts. In addition, several resource persons in both Bangladesh and the Netherlands were consulted on specific topics. The DPT was funded through the Partners for Water Program of the Dutch Government, with a close linkage to the Water Mondiaal Program as international part of the Dutch National Water Policy.

■ The first aim of the DPT was to learn whether there is robust demand for and commitment to long term holistic and integrated planning provided by a Delta Plan process. In connection with this aim the Delta Plan process needed to be explained, enhancing awareness about it. The second aim, in case of strong commitment, was to explore what the contours of such a plan could be.

The Delta Plan

Main elements of a Bangladesh Delta Plan are: to create a competent institutional setting, the development of scenarios integrating socio-economic and climate change perspectives and the identification of delta issues. These elements make it possible to develop a vision on the Bangladesh delta and a long term sustainable strategy. Such a vision can be formulated with forecasting and back-casting methods and will be linked to the policy and implementation process, with solid financial underpinning and with broad stakeholder involvement. In Figure 1 these main elements are indicated.

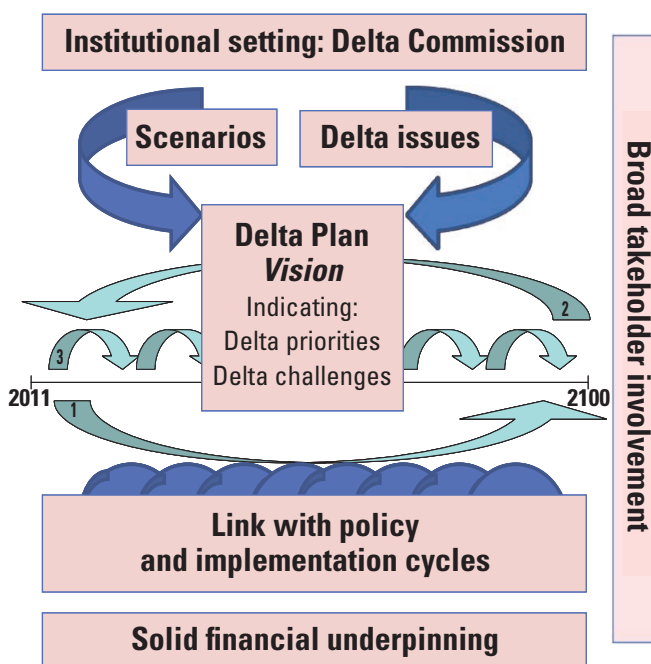


Illustration 1. Main elements of a Delta Plan

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Illustration 2. DPT-approach Bangladesh

The DPT-approach

In July 2011 the DPT started its consultation in Dhaka with the Embassy of the Kingdom of the Netherlands and the Water Mondial team present. The following tasks, based on discussion with stakeholders and a review of the Terms of Reference, were determined:

- To involve the Government of Bangladesh (GoB) and major stakeholders in a consultation process for a potential Bangladesh Delta Plan;
- To understand opinions and gain commitment from GoB and major stakeholders, and to provide the Embassy with a clear indication of a Go-No-Go moment;
- Following successful commitment and ownership, outlining of the contours of a Bangladesh Delta Plan;
- Indication of the institutional set-up for the preparation of a Bangladesh Delta Plan.

The approach followed was flexible, in fact a learning approach, in which the DPT followed the government planning approach while continuously discussing and reformulating the outcomes. The approach is separated into three distinct phases as Figure 2 indicates.

In need of an adaptive and holistic approach

The DPT views a Bangladesh Delta Plan as a climate change adaptation measure, integrated with sustainable development of the delta, aiming at the creation of a healthy and sustainable living environment for the people of Bangladesh now and in the future. In consultation with the stakeholders, the DPT defined the following key challenges for the formulation of an integrated and holistic Delta Plan:

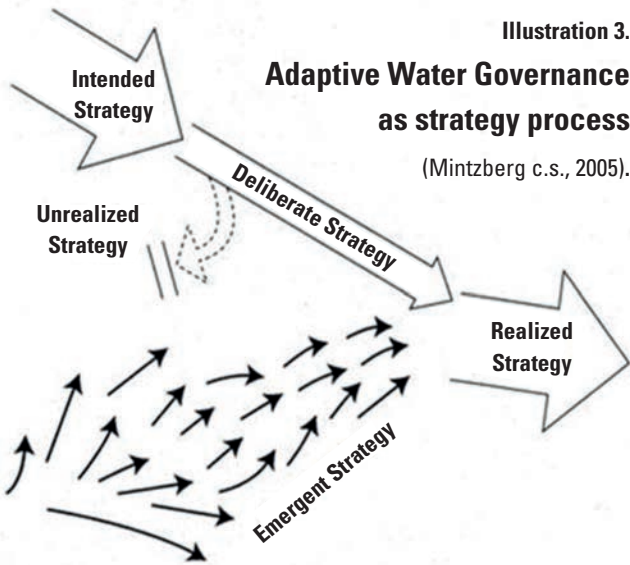
a. Integrated Approach: the Bangladesh Delta Plan's challenge will be to stand out and sustain in the middle of many plans which already exist. Various ministries are responsible for these mostly shorter term

plans (up to 10 years) and their implementation. This implementation is important but proves to be very difficult in many cases. There is also a strong need for policy coordination and improved connection of the different involved agencies. The challenge is to shape the Bangladesh Delta Plan in a holistic and integrated manner, taking into consideration the existing situation, and ensuring long term safety, food security and development possibilities. The Government of Bangladesh recognizes the importance of more integrated, holistic and long term planning in order to sustain future development and to take climate change into account. This is a significant opportunity for the Bangladesh Delta Plan. Coordination and clarity among the relevant ministries will be key elements of the planning process.

b. Identification of significant issues: one of the major challenges is to identify the delta issues and their drivers under the overarching idea of adaptive water governance. The challenge will be to focus on specific issues rather than on a long list, to ensure realistic knowledge development, adequate proposals and feasible implementation.

c. Political and financial conditions: the greatest challenges with any long-term plan are changing political and financial conditions in relation to strategic choices, investments or implementation.

The DPT envisages the Bangladesh Delta Plan as an important means to enable and improve delta life in all its functions, using the concept of adaptive water governance. This means that policy and plans, institutional and financial arrangements as well as organizational set up and performance are continuously modified in the course of time to adapt to new circumstances. In order to define the contours of a Bangladesh Delta Plan one has to be aware of some characteristics of strategic planning in the water sector.³ Most plans will be realized only partly because of changing conditions, circumstances and political or societal preferences. At the same time new emergent issues (new knowledge, new policies, new priorities) need to be incorporated in the strategy process. The dynamics of strategy processes are shown in figure 3.

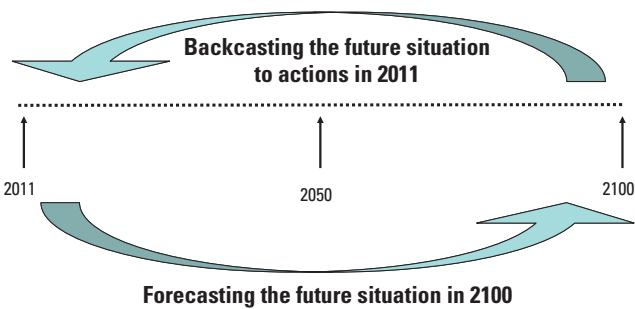


A strategic plan as the Bangladesh Delta Plan, reflects on the problems and trends of the present situation in the perspective of a desired future situation and provides a roadmap to bridge the gap between present and future. The exploration, analysis, sense making, interests and choices involved in the planning process are of crucial importance to make serious steps in the right direction based on strong ownership. Such a Delta Plan is important because of its strategic vision and coherent content to achieve a better future. It also forms a vehicle for communication, modification, decision making, action and commitment or ownership over time. The Bangladesh Delta Plan will be based on these principles of adaptive water governance.

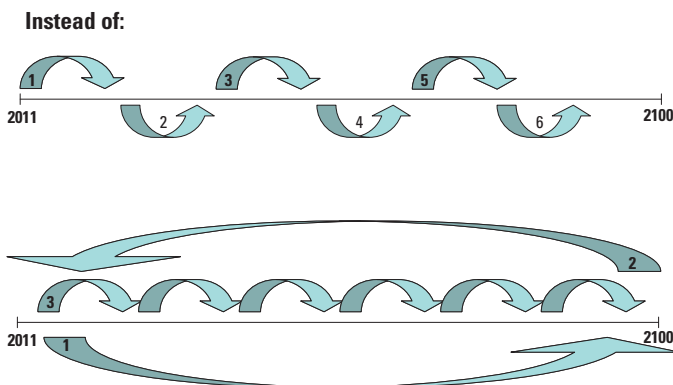
A Delta Plan with its focus on long term developments can only be successful if it is flexible, adaptive to new developments and incorporating the possibility of change. Such a plan offers a framework for analysis and understanding of the current situation in relation with the creation of strategic perspective and ambitions. Based on this, a robust strategic vision can be developed within which adjustments will be possible on the medium and short term. This can be done by forecasting, i.e. the process of predicting a future based on current trend analysis, combined with back-casting, where the process works backwards from a defined (set of) future(s) to identify policies and programs that will connect the future to the present.

Main issues of a Bangladesh Delta Plan

Bangladesh is a rapidly developing country, envisaging to be a middle income country in 2021. Despite the large population pressure, the country is nearly self sufficient in rice production. Especially the textile and ship building sectors are important economic drivers for further development. Urbanization of the areas around Dhaka, Chittagong and Khulna is taking place at a fast pace. This economic development combined with the population pressure, climate change and other physical circumstances result in high expectations and demands of water governance and related infrastructure of the country. The use of available water and land resources is already intense and makes fresh water management, improvement of food production and flood protection urgent delta challenges. Climate change will further aggravate salinity intrusion, causes sea level rise, and is likely to



The Delta Plan 2100 will create a clear vision or grand design of the future in 2100. Based on that vision it will be possible to design 'no-regret' actions leading from the present day situation to the desired future

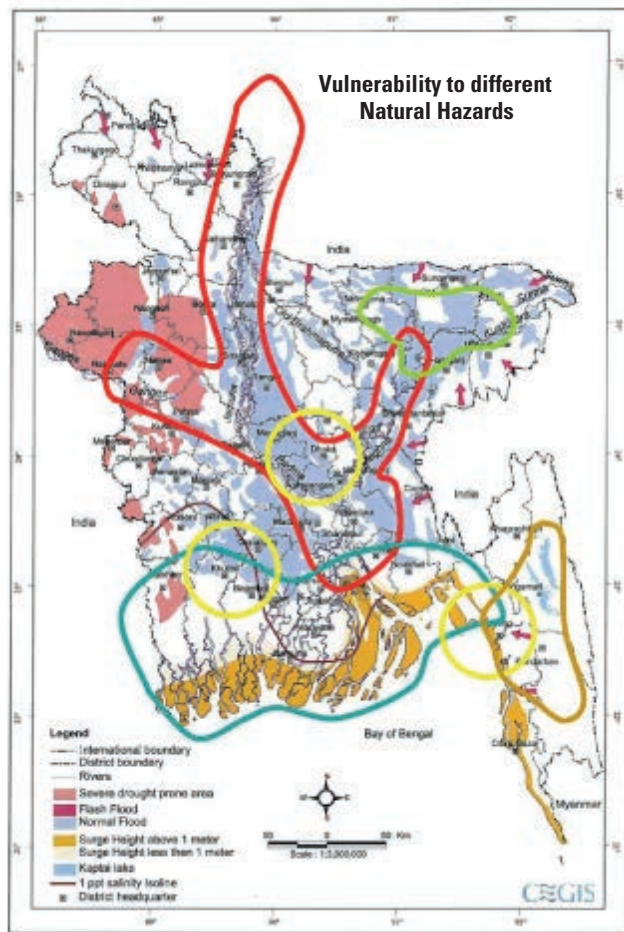


So instead of short term 'trial and error' actions and projects

A delta plan could be a roadmap towards well coordinated and prioritized investment in adaptation measures

Illustration 4.
Forecasting and back-casting methods.

Illustration 5.

Overview of hotspots. (CEGIS, Dhaka)

increase the frequency and intensity of river floods, cyclones and regional droughts.

Prior to the preparation of a Delta Plan it is necessary to identify the vulnerable locations for addressing the area specific problems and issues. The country, therefore, was delineated into five zones or hotspots based on vulnerability to natural hazards and their unique physical and environmental settings. The areas termed as hotspots are:

- 1 Coastal zone: Meghna estuary; Sundarbans
- 2 Floodplain: Major riverbanks; Haor region; Charlands
- 3 Barind region (North east, drought prone)
- 4 Hilly region (Chittagong Hill Tracts)
- 5 Dhaka and other urban areas.

Figure 5 gives an overview of the approximate location of the hotspots.

The Bangladesh Delta Plan will provide a strategy for the development of this dynamic and complex delta for the next 50 to 100 years. In the first exploration of issues, defining the most important drivers of change was useful to gain insights and to come to a first prioritization. Key drivers of change, identified through

Delta Plan 2100**possible themes and hot spot areas**

1. Water & Food and ecosystems
2. Flooding
3. Water supply and sanitation
4. Water & Climate change adaptation
5. Water Governance

- Mighty Rivers
- Coastal areas
- Urban centers
- Haor
- Hill tracts

analysis of expert opinions and elaborated in 2 consultation workshops involving many stakeholders, are:

- Population Growth
- Natural Resources
- Land Use and Spatial Planning
- Economic Development
- Social and Political Development
- Water Resources Management
- Technological Development.

Climate Change is viewed as a cross-cutting driver because it relates to all other drivers. It has severe impacts on infrastructure, on food and livelihood security and is an element to be addressed in the Delta Plan process and related policies. The stakeholders recognized the need to address a variety of drivers that will potentially influence the various aspects of water in Bangladesh. It was also acknowledged that climate change itself is not the number one driver but one which is amplifying the already existing problems. Therefore it is better to concentrate on vulnerability and risks and on enhancing the coping capacity of the society for dealing with current complex issues, rather than focusing on climate change impacts only.

In this respect institutional strengthening and capacity building of the in the Delta Plan process involved agencies are of vital importance. These agencies will play an important role in the development of the Bangladesh Delta Plan and of its implementation so they need to perform in their sector accordingly with suitable knowledge, management, organizations and human resources. The Bangladesh Delta Plan will be incorporated in the individual sector plans and implemented through development programs of the different ministries and departments as well as non-governmental organizations. It is also important to organize regional and local involvement in the Bangladesh Delta Plan process. All these issues require that institutional strengthening and capacity building

takes place already during the planning process not only to deliver contributions but especially to achieve understanding, acceptance and form knowledgeable organizations who can deal with the implementation, who are able to cooperate with the private sector and who will be able to renew the Bangladesh Delta Plan after five years.

Concluding remarks

Due to the broad impacts and complexity of the water problems, a long-term integrated approach like a Delta Plan will offer a new perspective on water safety and food security and a coherent policy framework relevant to other sectors as well. The Bangladesh Delta Plan with a holistic approach and a long-term vision (50 to 100 years), addresses integrated water resources management and climate change related issues of water safety and availability, food production and food security, salt intrusion, shortage of land, environmental and ecological problems and other important aspects to reach an adequate level of safety and food security as well as sustainable economic growth of the whole of Bangladesh. Since the Bangladesh delta is mostly governed by water resources, water governance issues in different sectors (e.g. agriculture, public health, environment, etc.) need to be integrated. This integration and improved organization and collaboration will be an essential part of the whole planning process.

The Government of Bangladesh underlines that this approach is needed not only to solve the current water (governance) problems but also to prepare for future conditions with higher sea levels, changes in water availability and probably more extreme events due to climate change. A strong organizational performance with respect to long-term reliable, transparent and accountable services in the Delta is of crucial importance to that. The DPT envisages the continuation and strengthening of structural collaborative partnerships with authorities, private parties, knowledge institutions and non-governmental organizations in the Netherlands and Bangladesh. It is anticipated that the Dutch and Bangladesh private sectors will play a pro-active role in finding and implementing innovative solutions for water related issues in the Bangladesh Delta area. ■

SAMENVATTING

Bangladesh en Nederland hebben gezamenlijk de betekenis en mogelijkheid verkend van de ontwikkeling van een Deltaplan voor Bangladesh. Een Deltaplan is daarbij opgevat als een op de lange termijn (50 tot 100 jaar) gericht, geïntegreerd en holistisch plan, bedoeld om waterveiligheid en sociaal-economische ontwikkeling in een delta gebied te bevorderen. Daarbij wordt expliciet rekening gehouden met klimaatverandering. Een Bengaals – Nederlands team van deskundigen heeft onderzocht wat de mogelijkheden en het draagvlak zijn voor lange termijn strategische planning mede in relatie tot bestaand beleid en implementatie. Tevens is nagegaan wat de contouren van een Deltaplan voor Bangladesh kunnen zijn.¹ De positieve bevindingen hebben geleid tot een overeenkomst tussen beide landen, die op 22 mei 2012 in Dhaka is getekend.² In betreffend Memorandum of Understanding is overeengekomen de samenwerking op het gebied van water tussen Bangladesh en Nederland te continueren en te stimuleren. In dit perspectief zal het Deltaplan van Bangladesh komende jaren gezamenlijk worden ontwikkeld en een belangrijke impuls geven aan water governance in dit land.

ACKNOWLEDGEMENT

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- 1 The results are described in: Giasuddin Ahmed Choudhury, Catharien Terwisscha van Scheltinga, Dick van den Bergh, Farook Chowdhury, Jaap de Heer, Monowar Hossain and Zahurul Karim. (2012). *Preparations for the Bangladesh Delta Plan*. Alterra Report 2300, ISSN 1566-7197. (download: www.bangladeshdeltaplan.org/).
 - 2 See MoU *'A Sustainable Delta, a Prosperous Bangladesh'* (2012). www.nwp.nl/_docs/Internationale_Activiteiten/MoU-Bangladesh-Delta-Plan-2100---22-May-20120001.pdf
 - 3 E.g. H. Mintzberg, J. Lampel and B. Ahlstrand. (2005). *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management*, Free Press.