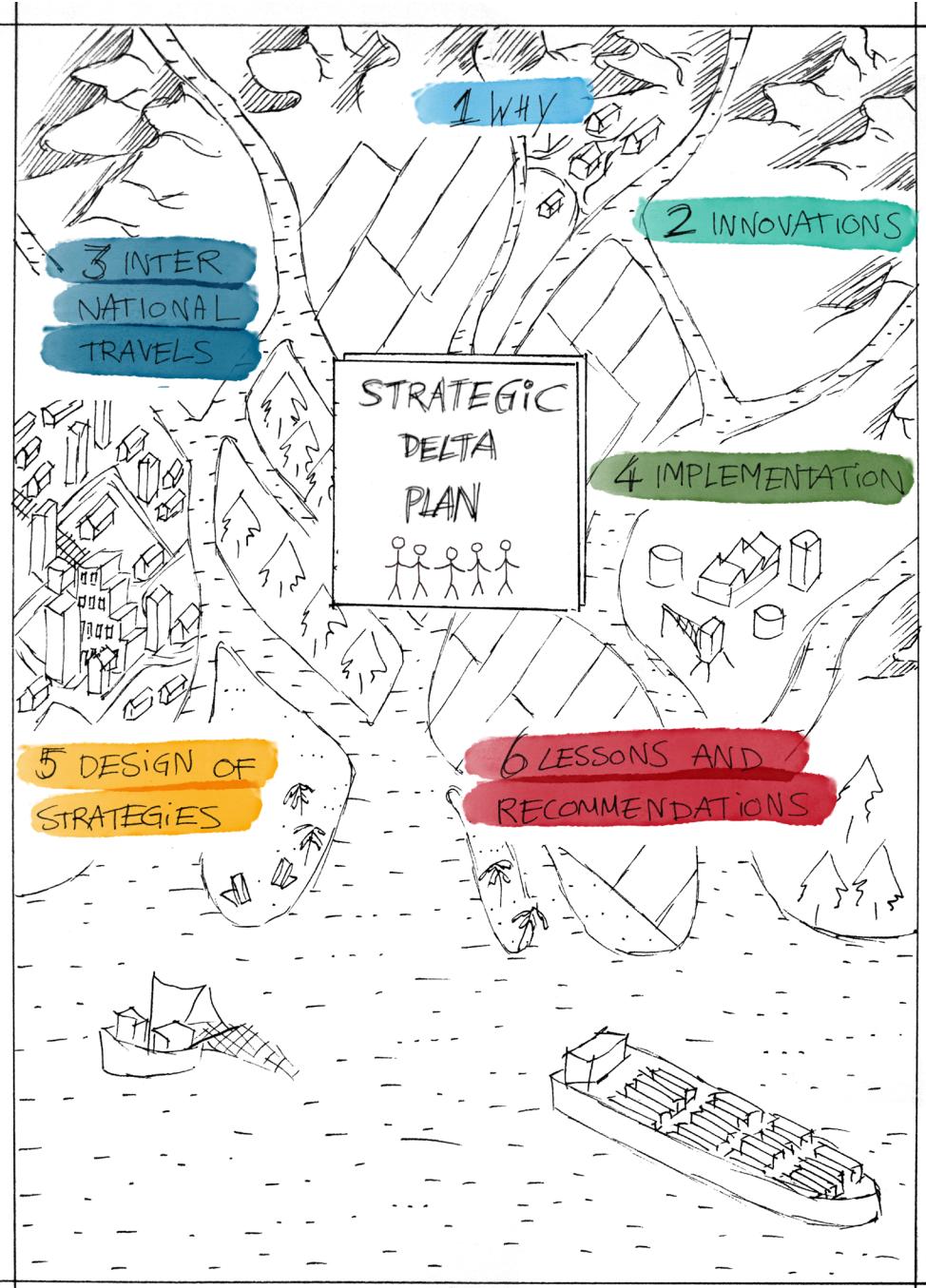


# Strategic delta planning research - Highlights

The international research project 'Strengthening strategic delta planning processes in Bangladesh, the Netherlands, Vietnam and beyond' looks back and presents its main findings for strategic planners and other delta professionals.





**Caption figure:** Like a delta system, our research project consists of interlinked elements that we present in this flyer. The numbers correspond with the text boxes in this flyer.



# A better understanding of the dynamics of delta planning

**Background:** Urbanising deltas worldwide face many threats to water and food security and sustainable development. Changes and innovations in water and land use are required to prepare deltas for the future. There is an increasing interest in delta plans that outline strategic and innovative choices for long-term delta developments. Over the past 5 years, we have seen that strategic delta planning is enthusiastically and positively promoted, but also criticised and questioned. We look back on our research project, and present a selection of the highlights with references to underlying studies and background materials.

**Objective:** The Strategic Delta Planning project aims to better understand the dynamics of delta planning and present recommendations. More specifically

we focus on the role of strategic delta planning processes in enabling consent among key stakeholders over strategic priorities and innovative solutions, and we explore if consent is sufficiently stable to allow for implementation. We study the Bangladesh Delta Plan, the Mekong Delta Plan in Vietnam and the Dutch Delta Plan, while taking into account the different contexts of politics, planning, and culture.

**Strengthening planning:** We take a reflective approach, by placing delta planning, innovation and change in a scientific context. Through our research we aim to provide lessons learned to the delta (planning) community on planning approaches and tools, and encourage discussion amongst delta communities.

**More information:** [Project website](#), [Report Research Synthesis Workshop](#).

**Caption photo:** Interview Vietnamese rice-shrimp farmers who want to fully convert to shrimp.

## 2a



### Innovating land and water use Insights of PhD candidate Vo Thi Minh Hoang on innovations in the Mekong Delta

The Mekong Delta Plan introduced new ways for land and water use in the Mekong delta, including innovations such as adaptive livelihoods and interprovincial coordination. As a result, a convergence of the agendas of stakeholders happened over time.

Innovation aspects for nature-based livelihoods have been studied for livelihoods in different agro-ecological regions of the Mekong Delta, e.g. flood-based floating rice and coastal-based mangrove-shrimp. Observations from local respondents on those livelihood models showed highly different preferences.

Lotus-farming (a potential alternative for triple rice in flood-plains in the Mekong delta) is recognised by all relevant social groups. It is not yet widely practised, although stakeholders acknowledge the potential it has to replace triple rice.

Innovations in the strategic delta planning process of the Mekong Delta have proven to travel from the agenda-setting phase to the formulation and implementation phases.

**More information:** [Scientific paper converging development agendas Mekong Delta](#), PhD thesis (in preparation).

**Caption photo:** Vo Thi Minh Hoang interviews a farmer in Dong Thap on lotus flowers.

**2b**

## A strategic innovation in Bangladesh

### Tidal River Management

Tidal River Management (TRM) is an innovative strategy to cope with congested rivers in the Bangladesh Delta. With TRM, tidal rivers and sediments are reconnected to surrounding low-lying areas. As a result tidal river systems are restored, as low-lying areas are elevated (0.2-2 meters) and tidal rivers deepen (9-12 meters) and widen.

From a strategic perspective, TRM is an interesting alternative with substantial improvements for livelihoods and environment in the southwest delta of Bangladesh.

In order to test and apply TRM at a larger scale, reconceptualisations are required at a strategic level, to strengthen consent nationally and locally. These reconceptualisations are: long-term thinking on sediment, multiple values of TRM, and value distribution to diverse local groups. Also, how to temporally relocate people is an important and challenging aspect that deserves attention, as during a TRM project a low-lying area is flooded for 3-5 years.

This research is strongly rooted in local and national discussions on TRM. A documentary and booklet were made to explain TRM visually and in simple language.

**More information:** [Scientific paper rethinking tidal rivers, sediments, and livelihoods](#), [documentary](#), [booklet](#).

**Caption photo:** Dilip Datta and his team produce a documentary on the benefits of tidal flow and sediments.

# 3



## Travels of delta planning expertise

### Insights of PhD candidate Shahnoor Hasan on int'l travels of Dutch delta planning expertise

Explaining the transfer of the Dutch delta planning model as a “best practice” transfer to areas in need, hides the efforts of the engaged actors in the transfer process.

Analysing and explaining the efforts, work, and actions, of the engaged actors (the work they did, why and how) helps us to understand what it takes for a policy model to be transferred.

The transfer of the Dutch delta approach to Vietnam and Bangladesh is grounded in old relations at governmental and personal levels (e.g. friendship and collegiality). Among all actors there are interests in finding new ways to continue their relations. Strategic delta planning as a new policy model supports a maintaining of these

relations and supports new investment opportunities in the recipient countries.

The work related to transferring the policy model is only partly based on developing the content of a strategic delta plan (analysis, planning and design activities). A lot of work goes into negotiation, diplomacy, and maintaining good relations between the engaged actors.

A successful policy transfer is thus not based on its similarity to the original, but is based on how it enables both recipient and sender actors to continue cooperation and create new opportunities for cooperation based on the new strategic delta planning model in Bangladesh or Vietnam.

**More information:** [Scientific paper travel to Mekong Delta to Bangladesh](#), [Blog](#), PhD thesis (in preparation).

**Caption photo:** Shahnoor Hasan presents her findings on the international travel and translation of Dutch Delta Planning at the 60th anniversary water conference of IHE Delft in the Netherlands.



4

## Plans and strategies are nice, but are they 'implementable'? The MOTA framework

The Motivation and Ability (MOTA) framework takes a multi-stakeholder and multi-level approach, to assess implementation feasibility of plans and strategies.

The MOTA framework is applied to assess implementation feasibility of top-down and bottom-up plans, for farmers and governmental decision-makers.

The framework was tested and refined during the project. From a first case study in Ho Chi Minh City on flood protection plans to detailed surveys for alternative farmer livelihoods, and implementation feasibility of the Mekong delta plan.

Vietnamese ministries (MARD, MONRE, MPI) and the World Bank have shown keen interest in the MOTA framework. To them it offers a solid, first estimate (including social surveys) to explore the feasibility of proposed strategies.

At WACC (Vietnam), but also IHE Delft and Wageningen University, master students and water professionals learn about MOTA and for instance apply it in a serious game for multiple stakeholders to assess the feasibility of designed plans and strategies.

In a follow-up research project, the MOTA framework will support implementation of programming for the Bangladesh Delta Plan.

# 5

## Strategy Lab - a safe environment to experiment and co-design alternative strategies

How to develop strategies for delta and river management that move away from business-as-usual solutions? The Strategy Lab offers a safe environment for policy-makers, planning practitioners and civil society to experiment and co-design alternative strategies.

The Strategy Lab offers a unique mix: participants develop future strategic scenarios through spatially explicit planning tools (scenarios and design), actor analysis and implementation feasibility assessment with MOTA.

Two Strategy Labs were held wherein participants co-designed strategies for land-water problems in Bangladesh and

Vietnam. These sessions helped to test and improve the setup of the labs, for different local contexts and participants.

The Strategy Lab consists of 5 steps: 1) problems and opportunities, 2) field visit, 3) scenarios & strategies, 4) implementation, 5) presentation.

The set-up and steps of the Strategy Lab can be tailored to various planning needs, in different phases of a planning process and for diverse groups of participants.

**More information:** [Flyer](#), [Scientific paper assessment framework for participatory planning tools](#).

**Caption photo:** Ho Long Phi explains the MOTA concept to participants in the Vietnam Strategy Lab.





6a

## Our transdisciplinary approach Connecting research and planning practice

The active involvement of the project partners from Bangladesh and Vietnam made the project strongly connected to local issues and people's networks, enabling a better local perspective on delta planning, and keeping in mind local needs and local contexts.

Non-academic partners brought 'real world experiences and insights' to our research. In return, they could discuss lessons learned on strategic delta planning, and bring refined concepts into practice.

From the start we used two analytical frameworks (Hourglass and MOTA) that helped to integrate the perspectives and contributions of project partners. Although there were different views about the frameworks, they did serve as common ground for discussions and helped to come to shared understandings.

An applied track around planning tools (e.g. scenarios and spatial design, presented in the Strategy Lab) was developed parallel to the research track. People were trained in the tools, and insights were obtained to strengthen the tools. Cross-track fertilisation took place in meetings and workshops, resulting in improved Strategy Labs and joint publications.

We engaged with planning practitioners regularly, and stimulated knowledge exchange between practitioners from different deltas, e.g. in the Research Synthesis workshop (November 2018). The many novel understandings of strategic delta planning (e.g. see Box 6b and 6c) are actively applied by project partners in their own delta planning work (e.g. CEGIS, IUCN, WACC, Deltares, PBL, Bosch+Slabbers).

**More information:** [Poster transdisciplinary research](#), [Report Research Synthesis Workshop](#).

**Caption photo:** Dilip Datta and Chris Seijger present implications of tidal river management research to delta planning professionals in Dhaka, Bangladesh.

## 6b

# Eight recommendations to strengthen strategic delta planning

- 1. Alternative directions** Strategic Delta Plans provide an opportunity to introduce alternative directions for delta development (e.g. nature restoration, diversified agriculture).
- 2. Strategic explicitness** Strategic Delta Plans need to be clear on strategic choices and directions, and make explicit how and where it differs from existing policies.
- 3. Politics** Developing a strategic plan is as much an analytical process as it is political. It requires continuous negotiations between actors to develop and maintain support and legitimacy for the plan and its implementation.
- 4. Past development directions** Do not underestimate the power of past development agendas and vested agendas of powerful actors. When successful, novel strategic directions can gradually replace business-as-usual agendas (e.g. 'more of the same' in agriculture, flood control, water management).

- 5. Adaptive innovations** New strategic directions need to be adaptive to local needs, and adaptive to (unknown) future needs to be successful in realizing the plan's objectives.
- 6. Vocabulary** Develop and apply a vocabulary that adheres to the contents of strategic planning and avoid semantic issues.
- 7. Local implementation** Much more attention is needed for local context and local implementation feasibility, to move a strategic delta plan to real change on the ground.
- 8. Participatory planning tools** With tools, delta planners have a choice on how they want to shape a strategic delta planning process. Inclusiveness and transparency are important to consider. Also, tools should be tailored to the local uniqueness of a process. (e.g. actors, issues, financial and human capacities and institutional context). See also Box 4 and 5.

**More information:** [Synthesis paper with recommendations](#), [Leaflet 'First lessons learned'](#), [Report Research Synthesis Workshop](#).

**Caption photo:** Strategic delta planning discussions among researchers, planners, civil servants, environmental advocates, journalists.



## Wrap-up: the role of strategic delta planning

With Strategic Delta Planning...

...new ideas, understandings and development agendas can be introduced that express a desired development trajectory with strategic priorities, to which a variety of actors can engage.

...consent for new ideas and agendas may be formed, but this is often weak and requires brokering and negotiations for several years. Actors (initially) tend to prefer vested practices and agendas. At a local-regional level, long-term strategies often reveal wide gaps between what is proposed and what can be readily implemented.

...consent has to be found in the political and policy stage before a strategic plan

can be effectively translated into short-term sector-specific plans, policies and projects.

...unexpected changes – beyond what strategic planners intend – are bound to happen that further strengthen or weaken consent for a strategic delta plan. Influential actors may step in – and a plan moves forward – or influential actors step out – and plan implementation appears to halt.

...implementation is challenging due to the ambitious nature: strategic orientations (e.g. more diversified agriculture, wetland restoration) have to be renegotiated across decision-making phases and arenas.

**More information:** [Special Issue](#) in Journal of Environmental Planning and Management, with 12 research papers presenting cases from Bangladesh, California, Indonesia, Italy, the Netherlands, and Vietnam.

**Caption photo:** Project team sails to the Marker Wadden 'because the Dutch never stop poldering.'

# Background

The project runs from 2014 to 2019, focuses on strategic delta planning in Bangladesh, Vietnam and the Netherlands, and builds upon research and capacity development activities of PhDs, postdocs and Consortium Partners. We take a reflective approach by placing delta planning, innovation and change in a scientific context. We aim to provide lessons learned to the delta (planning) community on planning approaches and tools, and encourage discussion amongst deltas and their planning professionals. The project is funded by the Urbanising Deltas of the World Programme of the Netherlands Organisation for Scientific Research (NWO) under Project Number W. 07.69.106. Questions? Contact project leader dr. Wim Douven [w.douven@un-ihe.org](mailto:w.douven@un-ihe.org).

## Project members

**Bangladesh University of Engineering and Technology, Bangladesh**  
Umme Kulsum Navera

**Bosch+Slabbers, the Netherlands**  
Stijn Koole  
Clim Sorée  
Maike Warmerdam

**Centre for Environmental and Geographic Information Services (CEGIS), Bangladesh**  
Gazi Md. Riasat Amin  
Malik Fida Khan

**Centre of Water Management and Climate Change (WACC), Vietnam**  
Tran Duc Dung  
Pham Dang Manh Hong Luan  
Ho Long Phi  
Nguyen Hong Quan

**Delft University of Technology, the Netherlands**  
Juan David Patiño Guerra  
Leon Hermans  
Dorien Korbee (postdoc)  
Wil Thissen  
Myrthe Vermoolen (PhD candidate)

**Deltires, the Netherlands**  
Maaike van Aalst  
Marcel Marchand  
Kymo Slager

**IHE Delft, the Netherlands**  
Wim Douven (project coordinator)  
Jaap Evers  
Shahnoor Hasan (PhD candidate)  
Chris Seijger (postdoc)  
Margreet Zwarteeven

**IUCN Southeast Asia, Vietnam**  
Jake Brunner  
Andrew Wyatt

**Khulna University, Bangladesh**  
Dilip Kumar Datta  
Gourango Nandi  
Israth Rabeya  
Sadhon Swarnokar

**Planbureau voor de Leefomgeving (PBL), the Netherlands**  
Like Bijlsma  
Willem Ligtvoet  
Leo Pols

**Wageningen University, the Netherlands**  
Gerardo van Halsema  
Petra Hellegers  
Vo Thi Minh Hoang (PhD candidate)

# Looking for more info?

Browse the Online Repository on our [project website](#), with results related to research, planning practice, and capacity building. In addition, each text box in this flyer holds footnotes with clickable sources for further information.



**Caption photo:** Discussing with farmers in the southwest delta of Bangladesh.

# Partners



bosch stabbers



Planbureau voor de Leefomgeving



Flyer design:  
IHE Delft  
Institute for Water Education

Questions about the Strategic Delta Planning Project? Contact project leader dr. Wim Douven (w.douven@un-ihe.org).



<https://strategic-delta-planning.un-ihe.org/>

PO Box 3015  
2601 DA Delft  
The Netherlands

+31 15 215 1715  
[info@un-ihe.org](mailto:info@un-ihe.org)

