

Transdisciplinary research (TR) = a team that works on (i),(ii),(iii) → (iv)

Poster's objective is to share our experiences of conducting TR research (upper part) and recommendations to keep it running (lower part of poster). **Transdisciplinary research according to Pohl (2005)** takes into account (a) the complexity of an issue, (b) science's and society's diverse perspectives on that issue, (c) involves non-scientists and members of different scientific disciplines, and (d) aims for practically relevant knowledge that (e) can contribute to an improvement of the status quo.

Our project is part of the Urbanising Deltas of the World Program, funded by the Dutch Organisation for Scientific Research (NWO). Project runs from 2014 to 2019, has a budget of ~0.9 million EU.

Our project team consists of people working in academia (IHE Delft, Wageningen University, Delft University of Technology, Bangladesh University of Engineering Technology, Khulna University), applied research and environmental consultancy (WACC, CEGIS, Deltares, PBL, Bosch+Slabbers), and advocacy (IUCN Vietnam). ..

(i) On a real-world problem

Urbanising delta's face many threats to water safety, water and food security and sustainable development. There is an increasing interest in **strategic delta plans** to address these threats through strategic choices and innovative solutions. Do these novel planning approaches live up to their expectations? What is their role in enabling change and innovation, and improving local livelihoods? Our research project aims to better understand the dynamics of strategic delta planning. We study this in **Bangladesh, Vietnam and the Netherlands**.

(ii) With an overarching framework

The Hourglass framework (Seijger et al., 2016) integrates the main **analytical perspectives employed by PhD and Postdoc researchers**. It distinguishes different decision-making phases of agenda setting, plan formulation, implementation, to study **consent** for a plan's agenda and strategies through the role and changes of:
1) Actor coalitions
2) Innovations
3) Participatory planning tools
 The framework integrates theories from strategic spatial planning, policy sciences, sociology of technology, participatory tools.

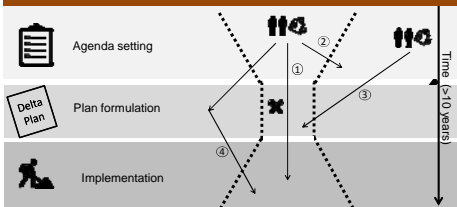
(iii) In shared case studies

Project members collaborate in joint case studies. In relation to strategic delta planning initiatives such as **Dutch Delta Plan, Bangladesh Delta Plan 2100, Mekong Delta Plan**, the following cases are studied:
 - Re-opening of coastal barrier in the Dutch delta
 - Tidal river management as strategic choice in Bangladesh
 - Innovations in the Mekong Delta (floating rice, room for the river, brackish economy)
 - Scenarios in delta planning, and how this tool/approach travels from NL to VNM and BD.

(iv) Resulting in transdisciplinary output

-**Research:** non-researchers bring 'real-world experiences and insights' to our research, they co-author papers, and assist in data collection (contact interviewees, field trips).
 -**Professional work:** project partners use and refine concepts and tools in their professional work, which is linked to new and on-going strategic delta planning processes in Bangladesh and Vietnam.
 -**Practical relevance:** collect, disseminate and discuss with practitioners lessons learned on strategic delta planning and implementation.

One overarching framework



- Helpful in developing the project proposal.
- Come to a (more) shared understanding amongst project members, resulting in joint publication of Seijger et al.
- Structure for cross-case comparison and Special Issue (in prep).

Which 'vehicles' keep the **TR-soul** alive?

Training workshops



Participant from Myanmar receives certificate upon successful completion of training workshop, Tra Vinh Vietnam.

- Integrate delta planning tools of project partners (scenario development, design charrettes, delta envisioning) with project's concepts on strategic delta planning and implementation (Seijger et al., Phi et al.).
- South-South exchange.
- Input for curriculum development.
- Stimulus to reflect on delta planning and tools.

Engage and discuss with planning practitioners



Discussion with the Bangladesh Minister of Water Resources, Anisul Islam Mahmud

- **Project leaflet** with initial lessons learned from research, tool workshops, joint visits.
- Dialogue with people actively involved in delta planning processes (scientists, policy makers, delta planners).
- Project members apply new understanding actively in delta planning (e.g. CEGIS, IUCN, WACC, Deltares, PBL, BS).

Joint field visits



Interviewing a shrimp farmer in Tra Vinh Vietnam

Waiting for the ferry to cross the Padma (Ganges) river, Bangladesh

- Visit potential case studies together in NL, VNM, BD jointly. Have interviews in the field.
- Discussion among consortium members.
- Inspiration and motivation for new projects and research ideas.
- Fun!

Further reading:

-Phi et al. (2015): A framework to assess plan implementation maturity with an application to flood management in Vietnam, *Water International* 40:7.
 -Pohl (2005): Transdisciplinary collaboration in environmental research, *Futures* 37.
 -Seijger et al. (2016): An analytical framework for strategic delta planning: negotiating consent for long-term sustainable delta development, *Environmental Planning and Management* 60:8.
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