



The influence of interdisciplinary collaboration on decision making: a framework to analyse stakeholder coalitions, evolution and learning in strategic delta planning

Myrthe Vermoolen and Leon Hermans

Delft University of Technology, faculty of Technology, Policy and Management, Delft, the Netherlands
(m.s.vermoolen@tudelft.nl)

The sustained development of urbanizing deltas requires that conflicting interests are reconciled, in an environment characterized by technical complexity and knowledge limitations. However, integrating ideas and establishing cooperation between actors with different backgrounds and roles still proves a challenge. Agreeing on strategic choices is difficult and implementation of agreed plans may lead to unanticipated and unintended outcomes. How can individual disciplinary perspectives come together and establish a broadly-supported and well-informed plan, the implementation of which contributes to sustainable delta development?

The growing recognition of this need to bring together different stakeholders and different disciplinary perspectives runs parallel to a paradigm shift from 'hard' hydrological engineering to multi-functional and more 'soft' hydrological engineering in water management. As a result, there is now more attention for interdisciplinary collaboration that not only takes the physical characteristics of water systems into account, but also the interaction between physical and societal components of these systems.

Thus, it is important to study interdisciplinary collaboration and how this influences decision-making. Our research looks into this connection, using a case in delta planning in the Netherlands, where there have been several (attempts for) integration of spatial planning and flood risk/ water management, e.g. in the case of the Dutch Delta Programme. This means that spatial designers and their designs play an important role in the strategic delta planning process as well, next to civil engineers, etc.

This study explores the roles of stakeholders, experts and policy makers in interdisciplinary decision-making in dynamic delta planning processes, using theories and methods that focus on coalitions, learning and changes over time in policy and planning processes. This requires an expansion of the existing frameworks to study interdisciplinary collaboration. The question here is how to combine policy science frameworks (e.g. the Advocacy Coalition Framework) and social network methods (e.g. Social Network Analysis) with frameworks that allow a connection with the physical delta systems. This will result in a new framework for analysing interdisciplinary stakeholder coalitions, evolution and learning in strategic delta planning. The use of this framework will be illustrated with an example from strategic delta planning in the Dutch Southwest Delta. With this, we want to see how spatial planning and water management disciplines have combined into new policies for delta management in the Netherlands over the past 25 years.