



## **Adaptive Delta Management: cultural aspects of dealing with uncertainty**

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Deltas are generally recognized as vulnerable to climate change and therefore a salient topic in adaptation science. Deltas are also highly dynamic systems viewed from physical (erosion, sedimentation, subsidence), social (demographic), economic (trade), infrastructures (transport, energy, metropolization) and cultural (multi-ethnic) perspectives. This multi-faceted dynamic character of delta areas warrants the emergence of a branch of applied adaptation science, Adaptive Delta Management, which explicitly focuses on climate adaptation of such highly dynamic and deeply uncertain systems.

The application of Adaptive Delta Management in the Dutch Delta Program and its active international dissemination by Dutch professionals results in the rapid dissemination of Adaptive Delta Management to deltas worldwide. This global dissemination raises concerns among professionals in delta management on its applicability in deltas with cultural conditions and historical developments quite different from those found in the Netherlands and the United Kingdom where the practices now labelled as Adaptive Delta Management first emerged.

This research develops an approach and gives a first analysis of the interaction between the characteristics of different approaches in Adaptive Delta Management and their alignment with the cultural conditions encountered in various delta's globally. In this analysis, first different management theories underlying approaches to Adaptive Delta Management as encountered in both scientific and professional publications are identified and characterized on three dimensions: The characteristics dimensions used are: orientation on today, orientation on the future, and decision making (Timmermans, 2015). The different underlying management theories encountered are policy analysis, strategic management, transition management, and adaptive management. These four management theories underlying different approaches in Adaptive Delta Management are connected to Hofstede's (1983) cultural dimensions, of which uncertainty avoidance and long-term orientation are of particular relevance for our analysis. Our conclusions comment on the suitability of approaches in Adaptive Delta Management rooted in different management theories are more suitable for specific delta countries than others.

The most striking conclusion is the unsuitability of rational policy analytic approaches for The Netherlands. Although surprising this conclusion finds some support in the process dominated approach taken in the Dutch Delta Program. In addition, the divergence between Vietnam, Bangladesh and Myanmar, all located in South East Asia, is striking.

### References

- Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of international business studies*, 75-89.
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