

Perspectives in Integrated Water Resources Management

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Introduction

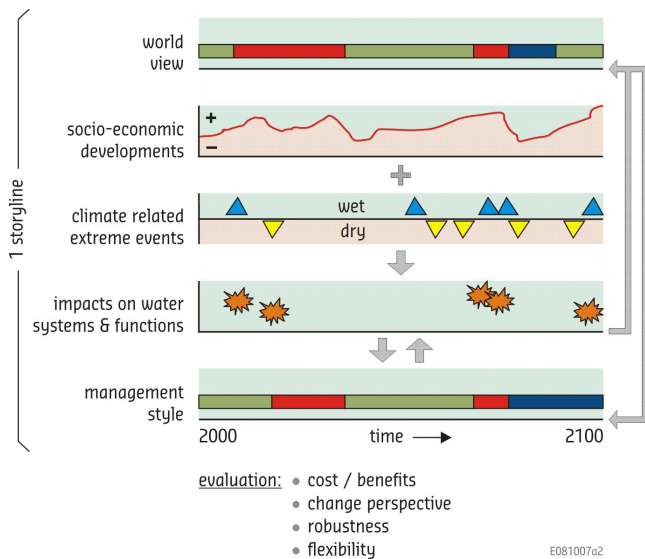
Water management faces major challenges to cope with potential global change impacts, and the inherent uncertainties surrounding future developments. Deltas are areas which are most at risk. Without robust management strategies and adaptation paths, human and natural services in deltas may suffer severe damage and we may be forced into sudden unplanned actions which are far more costly and less appreciated.

Objectives

The project has three main objectives:

1. To assess the vulnerability of river deltas for global change;
2. To develop a method to identify robust and flexible adaptation strategies in river deltas under uncertainty, taking into account different possible and integrated scenarios for the physical, socio-economic and social system; and
3. To provide recommendations on how to use this method to define robust and flexible strategies for the river deltas.

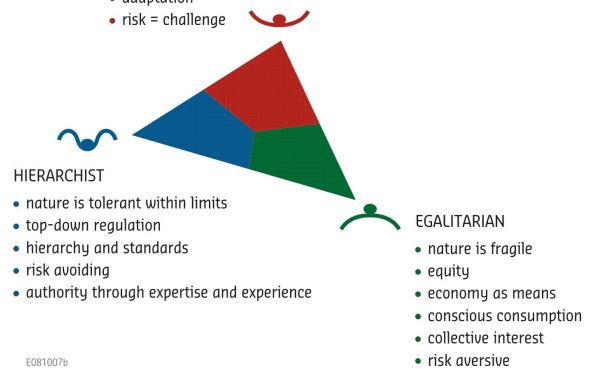
Evaluation method of scenarios and perspective-based management styles



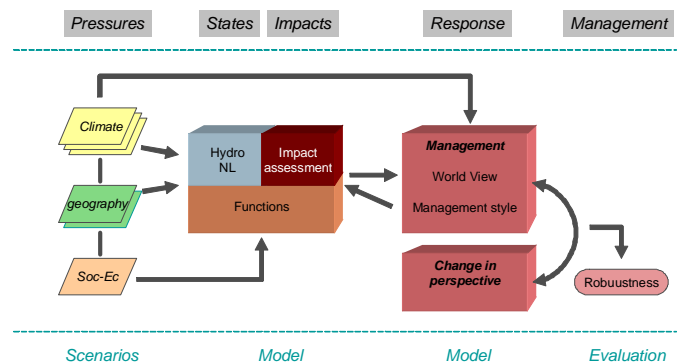
INDIVIDUALIST

- nature is robust
- economic growth
- anti-regulation
- market-oriented
- adaptation
- risk = challenge

Perspectives method translated to water



Rapid Assessment Model



Approach

A set of integrated transient scenarios, based on perspectives and transition theory, will be analysed on their benefits and costs and influence on perspectives with the Pressure, State, Impact, Response (PSIR) concept supported by integration of the hydrological system including water related services and the societal response. For this purpose a Rapid Assessment Model, describing the PSIR with transfer functions and decision rules will be developed. The results of the scenario analysis will be used to evaluate the management strategies and develop adaptation paths.



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