Introduction to the Management and Transition Framework - MTF

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The Management and Transition Framework (MTF) …

- … has been developed in the context of a major EU funded project on adaptive and integrated water management.
- … is a flexible (methodological) framework to analyse complex water systems and transition processes.
- … is applicable in and supports analysis of different environmental and governance contexts.
- … provides a base for comparative analysis (standardized language).
Key Research Questions to be Addressed with the MTF

- What are the characteristics of effective integrated and adaptive water governance and management systems?
- How to determine if only adaptation or major (and which) structural transformations (= transitions) are needed?
- How to support transformative change?
Diagnostic Approach supported by the MTF

- a configuration-based approach

- a process-based approach
Elementary Building Blocks

WATER SYSTEM
- Operational Outcome
- Institution
- Knowledge
- Action Situation
- Role
- Situated Knowledge
- Actor

Action
Situation

Association: Relationship between objects of class A and objects of class B with unspecified direction of the relationship.
Uni-directional Association: Relationship between objects of class C and objects of class D with specified direction of the relationship.
Aggregation: Objects of class E contain objects of class F.
Generalization: Class H is a specialized form of class G.
Fig. 4.3 Elementary building blocks of an Action Arena as represented in the MTF in UML notation (Unified Modelling Language). (Expansion of Fig. 3.5—see also for explanation of UML notation)
Chronological Mapping of Multilevel Water Governance Processes
### Table 9.3 Examples of operationalizing governance system properties using the MTF and derived relational databases (Pahl-Wostl et al. 2014)

<table>
<thead>
<tr>
<th>Governance system property</th>
<th>Indicator</th>
<th>Operationalization in MTF database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical integration</td>
<td>Link via institutions</td>
<td>Number of links between two levels by institutions connecting ASs and direction of influence</td>
</tr>
<tr>
<td></td>
<td>Link via knowledge</td>
<td>Number of links between two levels by knowledge connecting ASs and direction of influence</td>
</tr>
<tr>
<td></td>
<td>Link by actors</td>
<td>Number of actors from different levels participating in an AS</td>
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<td></td>
<td>Actors as integrators</td>
<td>Single actor is active on multiple scales by participating in ASs at several levels</td>
</tr>
</tbody>
</table>
Stylized Representation of Policy Cycle
Mapping of Multilevel Water Governance Processes to Phases of Policy Cycle

- Strategic Goal Setting & Policy Formulation
- Developing Operational Goals & Measures
- Implementation & Monitoring
Stylized Representation of Learning and Policy Cycles

Policy Cycle

Strategic Goal Setting, Assess Current State, and Policy Formulation

Implementation and Monitoring

Developing Operational Goals and Measures

Learning Cycle

Adaptive

Transformative
Multilevel Representation of Links between Learning and Policy Cycles
Legend:

Association: Relationship between objects of class A and objects of class B with unspecified direction of the relationship.
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