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Supporting Information for

Transforming European Water Governance? EU Water Framework Directive implementation in 13 member states

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Introduction

The supporting information provides the variable descriptions and a detailed account of the data aggregation procedures employed during the analysis.

Further, the supporting information contains a list of literature sources consulted to elicit the data for this analysis.
### Table S1. Variable descriptions

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RBM Planning Reference [RBM_PR]</td>
<td>Which scale serves as the main reference point for water resources management?</td>
<td>0=administrative, 1=hydrological</td>
</tr>
<tr>
<td>RBM Legal Responsibility [RBM_CA]</td>
<td>At which scale is the actor with legal responsibility for water resources management (or the designated Competent Authority under the WFD) located?</td>
<td>0=administrative, 1=hydrological</td>
</tr>
<tr>
<td>RBM Planning Responsibility [RBM_PA]</td>
<td>At which scale is the actor responsible for operating the planning process located?</td>
<td>0=administrative, 1=hydrological</td>
</tr>
<tr>
<td>RBM Implementation Responsibility [RBM_IA]</td>
<td>At which scale is the actor with primary responsibility for implementing measures located?</td>
<td>0=administrative, 1=hydrological</td>
</tr>
<tr>
<td>PP Number [PP_NO]</td>
<td>How many separate process types make up the participatory planning process?</td>
<td>number</td>
</tr>
<tr>
<td>PP Power Delegation [PP_PD]</td>
<td>The extent to which participants were able to influence the decisions to be taken (degree of decision-control granted to participants).</td>
<td>0=very low influence, 4=very high influence (co-governing)</td>
</tr>
<tr>
<td>PP Accessibility [PP_AC]</td>
<td>The extent to which access to the process by stakeholders and the public was constrained (e.g. presence of barriers or selection processes that regulated the access of potential participants).</td>
<td>0=very low, 4=very high</td>
</tr>
<tr>
<td>PP Representation [PP_RE]</td>
<td>Degree to which the constellation of interests involved in the participatory process was representative of the underlying stakeholder field.</td>
<td>0=very low (strongly biased), 4=very high (balanced representation)</td>
</tr>
<tr>
<td>PP Communication [PP_CO]</td>
<td>The extent to which the process provided opportunities for participants to engage in communicative interactions with each other and the authorities (e.g. listen as spectator vs. deliberate and negotiate).</td>
<td>0=very low (listen as spectator), 4=very high (highly deliberative)</td>
</tr>
</tbody>
</table>

RBM: River basin management  
PP: Participatory process
### Table S2. Public Participation in 13 EU member states under the WFD

<table>
<thead>
<tr>
<th>Country</th>
<th>Venues</th>
<th>Access and representation</th>
<th>Power delegation and communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>National roundtable; Local processes</td>
<td>Professional stakeholder selection, open locally; strong representation of nationally important interests</td>
<td>Consultative and informative function</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>District level planning committees; Regional seminars</td>
<td>Stakeholder selection; strong representation of established professional interests</td>
<td>Consultative function</td>
</tr>
<tr>
<td>Denmark</td>
<td>Regional water and nature council</td>
<td>Closed, rather balanced, selection of sanctioned stakeholders</td>
<td>Consultative and informative function</td>
</tr>
<tr>
<td>England/Wales</td>
<td>National liaison panel; RBD liaison panels; Local catchment processes</td>
<td>Stakeholder selection; stronger representation of potential co-deliverers</td>
<td>Advice and recommendations</td>
</tr>
<tr>
<td>France</td>
<td>Basin committees; Local level processes; Broad public outreach</td>
<td>Access points for various interests and publics; elections</td>
<td>Development of preferences, strong influence in decisions</td>
</tr>
<tr>
<td>Germany</td>
<td>State level advisory councils; Local sub-basin processes</td>
<td>Stakeholder selection, more open locally; strong representation of organised interests and users</td>
<td>Advice and recommendations</td>
</tr>
<tr>
<td>Hungary</td>
<td>National water management council; District water management councils;</td>
<td>Restricted stakeholder selection; rather balanced between government, NGOs, users, and academia</td>
<td>Consultative and informative function</td>
</tr>
<tr>
<td></td>
<td>Local councils</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>Regional advisory councils</td>
<td>Application for membership based on criteria; strong representation of local authorities</td>
<td>Consultative and informative function</td>
</tr>
<tr>
<td>Netherlands</td>
<td>National interest group forum; Regional water boards, sounding boards;</td>
<td>Closed selection, open locally; strong representation of organised interests</td>
<td>Development of preferences, strong influence in decisions</td>
</tr>
<tr>
<td></td>
<td>Local area processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>National water management forum; regional water management councils</td>
<td>Stakeholder selection; strong representation of users</td>
<td>Consultative and informative function</td>
</tr>
<tr>
<td>Scotland</td>
<td>National advisory group (NAG); Area advisory groups (AAG); AAG Forum</td>
<td>NAG/AAG: stakeholder selection, Forum open; representation according to local circumstances</td>
<td>Advice and recommendation</td>
</tr>
<tr>
<td>Spain</td>
<td>National water council; River basin and governing councils; Local working groups and workshops</td>
<td>Limited stakeholder selection and strong representation by users</td>
<td>Development of preferences, strong influence in decisions</td>
</tr>
<tr>
<td>Sweden</td>
<td>Regional water boards; Local water councils</td>
<td>Stakeholder selection, open locally; organised conservation interests under-represented</td>
<td>Advice and recommendations, provision of data and own proposals</td>
</tr>
<tr>
<td></td>
<td>Austria</td>
<td>Czech Republic</td>
<td>Denmark</td>
</tr>
<tr>
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<td>---------</td>
<td>----------------</td>
<td>---------</td>
</tr>
<tr>
<td>T0_RBM_PR</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td>T0_RBM_CA</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>T0_RBM_PA</td>
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<tr>
<td>T0_RBM_IA</td>
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<td>1</td>
<td>0</td>
</tr>
<tr>
<td>T0_PP_NO</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>T0_PP_PD</td>
<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>T0_PP_AC</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>T0_PP_RE</td>
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<td>2</td>
</tr>
<tr>
<td>T0_PP_CO</td>
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<tr>
<td>T1_RBM_PR</td>
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<tr>
<td>T1_RBM_CA</td>
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<tr>
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<td>0</td>
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<tr>
<td>T1_PP_NO</td>
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<td>2</td>
<td>1</td>
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<tr>
<td>T1_PP_PD</td>
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<td>T1_PP_CO</td>
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<tr>
<td>T0_RBM</td>
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<tr>
<td>T0_PP</td>
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<td>0.367</td>
<td>0.533</td>
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<tr>
<td>T1_PP</td>
<td>0.533</td>
<td>0.483</td>
<td>0.467</td>
</tr>
</tbody>
</table>
Text S1. Method of aggregation for indices used

Public participation (PP): To arrive at a single participation index, we standardised the five variables on a range between 0 and 1. To aggregate the single dimensions, we calculated the simple mean of the standardised variables for each country. The resulting participation index is shown on the x-axis of Figure 1.

Formula:

\[
\text{Participation}_i = \frac{PP \text{ Legal Status}_i + PP \text{ Number}_i + PP \text{ Power Delegation}_i + PP \text{ Accessibility}_i + PP \text{ Representation}_i}{5}
\]

where \(i\) = country.

River basin management (RBM): As with public participation, we aggregated these variables per country by calculating their simple mean. The resulting river basin management index is depicted on the y-axis of figure 1. Note, however, that there is – partly due to the binary nature of the variables and the logic of progressing institutionalisation beyond these variables – an inner logic and order. Therefore, the steps on this scale indicate qualitative difference in the institutionalisation of water resource management and planning on a hydrological scale.

In detail this means:

0  no basin planning

0.25  River basin unit (hydrological scale is the reference point for planning, prescribed by the WFD)

0.5  operational planning (actual operational planning and/or implementation is carried out by actors on river basin scale)

0.75  legal responsibilities (river basin actors are legally sanctioned)
Text S2. Literature drawn on in coding: European water resources management before and after EU Water Framework Directive implementation


Research report 2.3. Limoges: Office International de l'Eau.


Workshop reports
All reports delivered at the workshop: ‘Public participation and river basin management in WFD water planning’, Leuphana University of Lüneburg, Lüneburg, 1-3 September 2010.