Water governance in transboundary basins: critical issues of political resilience

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Transboundary basins

• Over 50% of available freshwater resources in shared river basins and lakes
• 45% of the Earth’s surface
• 145 countries riparians in shared river basins
• 166 out of 276 basins lack agreement
• 33 countries have 95% or more of their water in shared river basins
Transboundary and federal rivers
The challenge: collective action problems

• The spatial misfit: unidirectional upstream-downstream motion of externalities
  – Water (flow, shortage, flood, timing)
  – Pollution and ecosystems
  – Economic uses (energy, navigation, agriculture)

• Upstream-downstream asymmetry
  – Sentiment of exposure
  – Suspicion of unilateralism
  – Regional power positions

• Core elements of statehood such as sovereignty, territorial integrity and national security

• Core societal values and cultural constructions

• Climate change and other drivers have a strong potential to alter current hydro-political balances
How to ensure peace and cooperation in shared basins?

- Empirically: transboundary issues have led to more cooperation than conflict
- Yet, cooperation can also be difficult to achieve (co conflict - no cooperation)
- What are the ingredients of success?
- Empirical data suggests:
  - Institutions of transboundary governance
  - Capacity to adsorb new changes (nature/scale/speed)
Indicators of the resilience of transboundary governance

- Legal framework
- Water quantity management
- Water quality management
- Variability management
- Dispute settlement
- Institutions (RBO)
## Assessment of the resilience of transboundary governance

### Distribution of treaties and river basin organisation components by continent (%)

<table>
<thead>
<tr>
<th>Individual treaty and RBO components</th>
<th>Basin continent</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Africa</td>
<td>Asia</td>
<td>Europe</td>
<td>N. America</td>
<td>S. America</td>
</tr>
<tr>
<td>At least one water treaty</td>
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<td>69</td>
<td>64</td>
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<td>Allocation</td>
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<td>25</td>
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<td>Variability mgmt.</td>
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<td>18</td>
<td>34</td>
<td>15</td>
<td>6</td>
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<tr>
<td>Conflict resolution</td>
<td>35</td>
<td>25</td>
<td>49</td>
<td>44</td>
<td>15</td>
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<tr>
<td>At least one RBO</td>
<td>40</td>
<td>19</td>
<td>32</td>
<td>56</td>
<td>22</td>
</tr>
</tbody>
</table>
Hotspots

Later this year, Turkey will complete the Ilisu Dam on the Tigris River, part of a national push to boost electrical power capacity. Besides submerging the 12,000-year-old Hacinesilah settlement, the dam may damage the already fragile Mesopotamian marshes downstream in Iraq, Germany, Austria, and Switzerland withdrew funding for the dam in 2019.

Uzbekistan, fearing irrigation water loss, has imposed tariffs and travel restrictions on its neighbor to the east.

In 2011, Ethiopia began building the Grand Renaissance Dam on the Blue Nile, a tributary that provides about 80 percent of the Nile's water. Egypt and Sudan are concerned about the dam's effect on water flow, dam needs, and Ethiopia's say in the plans.