



Measuring the impacts of water governance

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KEY POLICY MESSAGES

- Managing water goes beyond hard infrastructure to encompass broader governance questions, like who does what, how they do it, and at what scale.
- The OECD Water Governance Indicator Framework provides guidance for monitoring progress in water governance amidst current and future challenges.
- Measuring impacts helps policy makers understand them and pinpoint the sources of successes and failures.

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Monitoring and evaluation are crucial elements of effective water management. Policymakers must maintain an informed understanding about both natural and societal conditions, with the aim of securing water supply continuity and quality, broadening access to safe drinking water and sanitation, and preventing or adapting to water threats and disasters.

Determinants of effective water management concern not only technical issues but also governance and institutional performance – including responsiveness, accountability, and data transparency. A multi-stakeholder approach to monitoring and evaluation ensures not only that the right questions are asked but also that findings reach a diverse array of audiences. To this end, monitoring networks can leverage the collective capacity of parties immediately impacted by water conditions.

KEY IMPACTS IN NEED OF MEASUREMENT: RESPONSIBILITY, COHERENCE, AND ENGAGEMENT

As part of a suite of twelve Indicators for improving water governance, the OECD promotes clear allocation of roles and responsibilities, cross-sector coherence, and stakeholder engagement.

Clear roles and responsibilities

Water governance is complex as natural systems like watersheds are encompassed by overlapping political structures: polycentric governance systems (e.g., local, state, and national), purpose-specific regulatory jurisdictions (e.g., basin management committees), and cross-sector and regional governance partnerships.

Amidst these multi-faceted and multi-layered systems, roles and responsibilities for water governance can become contested or unclear. Political and administrative interests may protect their spheres of influence, while lack of completeness and clarity in agreements can be inefficient.

One example of the complex governance setting of water management is in Egypt, where an array of institutional arrangements and overlapping roles and responsibilities led to biases among partners and users and frustrated efforts to implement policies. In Brazil, weak accountability, insufficient technical understandings, and lack of issue-awareness among members of river basin committees magnified power differentials and elevated some political interests over others. The challenges observed in these two

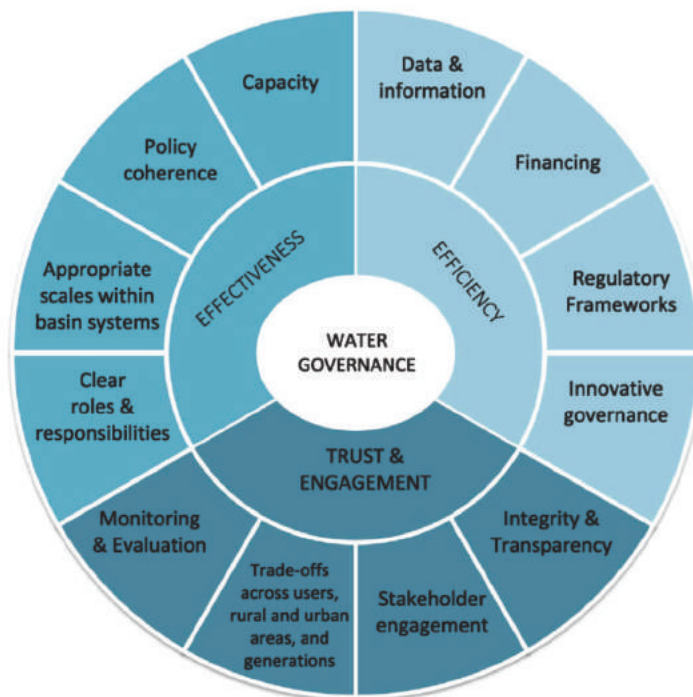
cases reflect the types of challenges experienced in many countries, undermining global progress on the OECD Principles.

Cross-sector coherence

Water governance is increasingly recognized as a multi-sector effort, across policy domains like agriculture, industry, land use, and public health. Strategic and operational coordination can reduce bottlenecks and improve administrative and operational efficiency.

A robust cross-sector perspective reflects not only various types of actors but also types and scales of policy issues. Practices in water governance and monitoring should be integrated, coherent, and

By contrast, incoherence and inconsistency in policy mixes – across sectors and policy domains – can hamper water management efforts. In Iran, for example, such incoherence has generated conditions



OECD Principles of Water Governance

Institutional design and quality are crucial for improving monitoring and supporting coordination



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in which an excessive number of wells was drilled, leading to groundwater over-extraction. In Vietnam's An Giang province, differing understandings across actors about the concept of 'living with floods' (i.e., allowing floods on a temporary basis while focusing on resilience to impacts) compromises shared efforts to build adaptive capacity against flooding.

Such challenges and failings can weaken the link between policy visions and implementation. In a multi-layered governance setting, understandings about water management should be collaboratively developed and consistent across jurisdictions.

Stakeholder engagement

While engineering and operational issues receive substantial policy attention and resources, the impact of water in people's daily lives highlights the importance of understanding the array of socio-political interests that exists in any given community.

Institutionalizing stakeholder engagement – including two-way communication between water managers and communities – can ensure that monitoring and other technical decisions align with societal needs, expectations, and values. Principles

like co-design and co-implementation can be applied to various aspects of water governance, from strategic planning to assessment.

Relatedly, stakeholder engagement – in defining problems, evaluating impacts, and determining solutions – is crucial for building community trust in water governance. A comparative study of cases in Europe, Latin America, and Asia, shows that this approach requires co-creation and community learning capacities for collecting and communicating information (e.g., 'open science') and enables pathways for converting scientific knowledge to on-the-ground practice.

Effective stakeholder engagement is achievable when recognizing local communities as holders of valid knowledge that may not always be formally scientific. In turn, transparency and accessibility in information and monitoring systems can democratize water governance by elevating local wisdom in its manifold forms.

As with many policy challenges, a fundamental reference point for policymakers is to blend scientific understandings with community input and

*Monitoring across policies
should be coherent
and consistent*

participation. This approach is possible through the effective design of institutions, flexible governance frameworks, and inclusive policymaking processes.

COMMUNICATE AND COLLABORATE

Effective monitoring extends from contextual rootedness in how water governance is perceived by all impacted parties. This approach requires an interdisciplinary perspective that acknowledges the role of soft factors such as social values, political dynamics, and perceptual biases. The connective tissue of contextual rootedness is communication and collaboration between policy actors and the communities they serve.

In a USA-based study of water management practitioners, perceptions about the relative importance of water sustainability indicators was found to vary by organizational context (e.g., land or water agencies) and the characteristics of the immediate community (e.g., population and income level). These findings provide but one example of the deep political embeddedness of water management and evaluation.

At a granular level, selection of indicators should also be contextually rooted. For example, a study about the history of water governance in France found that a 'universal' set of indicators was not appropriate across all water resources; the poor conditions of some water bodies rendered too ambitious the policy goals suggested by certain indicators. Community collaboration and communication can help fill such gaps in understanding about local context, making monitoring systems more responsive and relevant..

THE PATH FROM MEASUREMENT TO ACTION

The path from impact measurement to action is fraught but achievable through clear targets, robust monitoring, and institutional structures that create space for new ideas. For example, in a study of transboundary water governance from cases around the world, innovation and adaptation are found crucial for ensuring that groundwater serves as a buffer against water supply variability in the face of climate change. The study suggests the value of a 'learning-by-doing' approach in the form of pilot cases and demonstration projects.



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There is no universal approach to measuring the impacts of water governance. Some general lessons can be applied, but choosing which impacts to measure and how depends on the unique circumstances of each case. Because there are limits to technical and deterministic solutions, particularly amidst increasingly erratic and unpredictable weather patterns, a governance approach based on impact measures is the most reliable pathway towards water sustainability.

Community engagement can provide local context for monitoring systems.

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