2B	
EFFECTIVENESS	**Principle 6. Appropriate scales within basin systems**

Target group / Relevant stakeholder: National Policy-Makers, Municipal Governments, Urban Water Utilities, Medium Water Utilities, Rural Service Providers, Watershed or River Basin Organisations, User Groups, Networks or Platforms, and/or Private Sector

DESCRIPTION

Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and foster coordination between the different scales (OECD, 2024, 23).

EXPECTED RESULTS

Outputs:

- Responses to long-term environmental, economic and social objectives with a view to making the best use of water resources, through risk prevention and integrated water resources management (OECD, 2024, 23).
- Sound hydrological cycle management from capture and distribution of freshwater to the release of wastewater and return flows (OECD, 2024, 23).
- Adaptive and mitigation strategies, action programmes and measures based on clear and coherent mandates, through effective basin management plans consistent with national policies and local conditions (OECD, 2024, 23).
- Multi-level cooperation among users, stakeholders and levels of government for the management of water resources (OECD, 2024, 23).
- Riparian cooperation on the use of transboundary freshwater resources (OECD, 2024, 23).

CONDITIONS FOR SUCCESS

- Adaptation to local contexts (Blomquist et al., 2005): Decision-making reflects the natural boundaries of water systems, such as rivers and watersheds. It also involves cross-boundary cooperation to tackle common water-related issues such as pollution.
- End-user focus (Billib et al., 2009): Governance takes place at the lowest appropriate level, fostering local participation, ownership, and the strengthening of local institutions. The higher governance levels offer support and coordination when needed.
- Cross-sectoral policy coherence: Policies across sectors (e.g., water management, land use, energy) are harmonised and aligned between different governmental agencies.
- Enabling legislation: Legal frameworks clearly define roles and responsibilities at various levels of government, establishing enforcement mechanisms, and providing conflict resolution procedures.
- Rights-based approaches: Water is acknowledged as a public good and water rights are prioritised, particularly for marginalised groups and the environment (Gilissen et al., 2019).
- Sustainable financing: Sufficient funding is allocated to implement basin management plans.
- Capacity enhancement: Training and capacity development initiatives at all levels enhance stakeholders' ability to participate in decision-making, particularly for local authorities and community members.

BARRIERS

- Geographical misalignment: Political and administrative boundaries often do not match hydrological ones, with laws focusing more on administrative boundaries than ecological realities. This can lead to decisions that do not benefit water systems spanning many regions or countries.
- Fragmented jurisdictions: Water management often involves multiple administrative units (e.g., municipalities, states, countries) with differing regulations, policies, and priorities.
- Inadequate vertical coordination: Misaligned priorities, weak interagency collaboration, and lack of communication between local, regional, and national governments can result in conflicting policies and ineffective implementation.

- Power imbalances: Conflicts among stakeholders and misalignment between local and national priorities can avoid making decisions for the most relevant geographic scale to achieve sustainable water management. Dominant water users or influential actors might shape policies in their favour, potentially overlooking local needs and environmental sustainability (Billib et al., 2009).
- Centralised decision-making and limited local resources: Concentrated decision-making at the national level prevents local authorities from engaging in IWRM, misaligning decisions with local needs and priorities.
- Inadequate legal and policy framework at the basin-level: The lack of basin-wide legislation and weak enforcement hinder the implementation of effective management plans, especially in transboundary basins with many countries involved.
- Lack or limited transboundary coordination mechanisms (van Rijswick, Gilissen and van Kempen, 2010): When countries share a river basin, they may be unwilling to delegate their authority to joint governance structures. In this regard, national regulations, economic priorities, and geopolitical dynamics can create tensions that hinder cross-border cooperation.
- Insufficient funding mechanisms: Limited funds at the local level may prevent the necessary actions to implement basin-wide plans, with long-term investments often lacking in favour of short-term project financing.
- Data fragmentation and limited sharing: Water data availability, quality, and use is often fragmented across agencies and may not be accessible to decision-makers at the appropriate scale due to security concerns or limited access to information.
- Barriers to decentralisation: Resistance from central authorities can delay or block decentralised decision-making as well as implementation of basin-scale governance.

SOLUTIONS

- Multi-criteria decision-making frameworks: Analytical models and scenario evaluations support the assessment of management strategies (Billib et al., 2009). This can offer a comprehensive perspective on both water dynamics and socio-political factors.
- Participatory and inclusive decision-making: Effective basin governance at the appropriate level requires the involvement of diverse stakeholders, governments, local communities, indigenous groups, the private sector, and NGOs, to ensure decisions reflect a broad range of interests and knowledge, leading to more sustainable and equitable outcomes.
- Access to reliable data: Accurate, up to date data on hydrology, water quality, ecosystem health, and social and economic factors is essential to make informed decisions.
- Knowledge sharing: Collaborative data sharing platforms can enhance transparency and coordination. Networks for sharing best practices, scientific research, and traditional knowledge strengthen decision-making and implementation.

EXAMPLES

Advancing Municipal Drought Resilience through Strategies for Small and Medium-Sized Communities in Spain

SDGs linked

Water risks

Spain's severe droughts between 1991-95 and 2005-08 exposed vulnerabilities in water supply systems, particularly in urban areas, leading to widespread disruptions. In response, the National Hydrological Plan (2001) mandated the development of drought management plans at both the basin and municipal levels. However, small and medium-sized municipalities struggled to adopt these plans due to limited technical and financial capacities. To address this gap, the Fundación Nueva Cultura del Agua (FNCA) and the Association of Public Water Operators (AEOPAS) developed a tailored guide to support municipalities in creating drought emergency plans. The participatory approach used in these plans fostered dialogue between technical bodies, local administrations,

and communities, improving resilience to drought events. This structured approach has led to the approval of six municipal drought plans, marking a shift from reactive crisis management to proactive water planning.

Linkages to Governance Principles

Appropriate scales within basin systems were considered by integrating local water needs into broader river basin drought planning. Engagement of vulnerable groups was enhanced by supporting small and medium-sized municipalities in developing tailored drought management plans. Integrated strategies and local empowerment were central to ensuring long-term water security through participatory planning. Capacity building was carried out through the development of technical workshops and training for local authorities and service providers. Policy coherence was reinforced by aligning municipal plans with national and EU drought management directives. Managing trade-offs was essential to balance urban, agricultural, and environmental water demands, while environmental resilience was strengthened through structured drought indicators and risk management strategies.

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