

OECD Council Recommendation on Water



DECEMBER 2016

The OECD's governing body, the Council, has the power to adopt legal instruments, usually referred to as the OECD Acts. These Acts are the result of the substantive work carried out in the Organisation's Committees. They build on the extensive analysis and expertise of OECD committees and benefit from a whole-of-government approach.

Recommendations are not legally binding, but practice accords them great moral force as representing the political will of Members and non-Members having adhered to them (the Adherents). There is an expectation that Members and non-Members having adhered to the Recommendation will do their utmost to fully implement it.

The OECD actively supports non-Members' adherence to the Recommendation of the Council on water. OECD non-Members wishing to adhere to the Recommendation on water are invited to contact Xavier Leflaive, OECD Environment Directorate (xavier.leflaive@oecd.org).

Central and subnational authorities can use the Recommendation as a reference to assess and possibly review their policies which contribute to water resource management and water security. They can do so on a voluntary basis, either through individual self-assessment, or through an OECD water policy dialogue, at their request and subject to available funding.

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Ambition and scope

This document presents the Recommendation of the OECD Council on Water (hereafter the Recommendation). The Recommendation forms a concise and coherent legal instrument providing high-level policy guidance on a range of topics relevant for water resources management and the delivery of water services: managing water quantity; improving water quality; managing water risks and disasters; ensuring good water governance; and ensuring sustainable finance, investment and pricing for water and water services.

The Recommendation sets out a number of measures that Members and Partners having adhered to it (hereafter the “Adherents”) should consider so that water management contributes to sustainable growth and development. Notably, the OECD Council recommends that Adherents: set up and implement water policies that are adjusted to local conditions; manage water quantity through a combination of policies that manage demand for water, promote water use efficiency and allocate water where it is most needed; and prevent, reduce and manage water pollution, from all sources, in surface and groundwater and in water-related coastal ecosystems.

The Council also calls on Adherents to enhance the effectiveness and efficiency of, and trust and engagement in, water governance. Section 6 of the Recommendation reflects the OECD Principles on Water Governance, which were developed within the OECD Water Governance Initiative and welcomed by Ministers at the 3-4 June 2015 Ministerial Council Meeting. The Council recommends that Adherents set up measures for the sustainable financing of water services, water infrastructures, water resources management and the protection of water-related ecosystems.

The Recommendation was adopted on 13 December 2016, after a 2-year consultation process, which involved a range of OECD Committees and partner institutions and networks including: the Environment Policy Committee, the Committee for Agriculture, the Regional Development Policy Committee, the Regulatory Policy Committee and the Development Assistance Committee. It also reflects comments received through a round of public consultation organised in April 2016 and undertaken with the Business and Industry Advisory Committee, the Trade Union Advisory Committee, the European Environmental Bureau and the OECD Water Governance Initiative. More information about the process and comments received through public consultation are available on the OECD Water webpage (www.oecd.org/water).

In order to provide support to Adherents in implementing the Recommendation, the OECD will develop an implementation toolkit in the course of 2017-18. The toolkit will provide additional information on the rationale for the policy recommendations, a menu of options and tools that can help implement the draft Recommendation and international good practices.

Background

The effective and efficient management of water resources and water services remains a major challenge for many OECD Members and Partners, and pressures on water resources continue to mount. The OECD Environmental Outlook to 2050 highlighted major concerns for water management: increasing competition for access to water (driven by population and economic growth); decreasing water quality; the continued need to expand access to safe drinking water and sanitation in many parts of the world and maintain water services in others; deteriorating groundwater supplies; and the threat posed by climate change.

The global scale of the challenge that can be monetised (excluding environmental risks) is estimated to be USD 500 billion annually. Of these costs, inadequate water supply and sanitation amounts to USD 260 billion per year.

The inclusion of water as one of the Sustainable Development Goals (SDG 6) and its prominence in a range of other SDGs reflect the importance that the global community places on water. There is increasing demand by governments, industry, cities, communities, operators and non-governmental or civil society organisations for innovative and more effective approaches to water management. These would take into account the varied and competing demands on the resource, including both the need to maintain environmental sustainability and ensure that the needs of the most vulnerable members of society are met.

The OECD has been providing policy guidance on water to OECD Members and non-OECD Members since the early 1970s, covering a wide range of issues including water risk management, allocation reform, governance, water use in agriculture and cities, pricing and financing water services and infrastructure.

The Council Recommendation captures the main messages that derive from that work and that can help address the pressing issues that central and subnational authorities need to respond to.

OECD Council

Recommendation on Water



THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

HAVING REGARD to the Recommendation of the Council on guiding principles concerning international economic aspects of environmental policies; the Recommendation of the Council on the implementation of the Polluter-Pays Principle; the Recommendation of the Council on Principles concerning transfrontier pollution; the Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution; the Recommendation of the Council on the use of economic instruments in environmental policies; the Recommendation of the Council on Integrated Coastal Zone Management; the Recommendation of the Council on Regulatory Policy and Governance; the Recommendation of the Council on the Public Governance of Public-Private Partnerships; the Recommendation of the Council on the Governance of Critical Risks; and the Recommendation of the Council on Effective Public Investment across Levels of Government;

HAVING REGARD to the Recommendation of the Council on the Control of Eutrophication of Waters, the Recommendation of the Council on Strategies for Specific Water Pollutants Control, the Recommendation of the Council on Water Management Policies and Instruments and the Recommendation of the Council on Water Resource Management Policies: Integration, Demand Management and Groundwater Protection, which this Recommendation replaces;

HAVING REGARD to the OECD Principles on Water Governance, welcomed by Ministers at the 2015 meeting of the Council at Ministerial level, which are reflected in Section 6 of the present Recommendation and which will guide the implementation of that Section;

HAVING REGARD to the 2015 Ministerial Council Statement in which Ministers invited the OECD to develop a Recommendation that updates and consolidates existing recommendations on water;

HAVING REGARD to the 2030 Agenda for Sustainable Development, the 2015 Addis Ababa Action Agenda, the 1992 Convention on Biological Diversity, the 2015 Sendai Framework on Disaster Risk Reduction, the 2015 Paris Agreement under the United Nations Framework Convention on Climate Change and the General Assembly Resolution on the human rights to safe drinking water and sanitation;

CONSIDERING that water is essential for life in many different ways, including for the ecosystems on which all life and a range of human activities depend; that access to safe drinking water and sanitation promotes the progressive realisation of human rights and general well-being, including gender equality; and that mitigation of water risks is a prerequisite for sustainable growth, social inclusion, and food and energy security, as captured by the water-food-energy nexus;

ACKNOWLEDGING that water management covers fresh surface and ground waters (which play a critical role in supplying, storing and cleaning water and being vulnerable to unsustainable practices) as well as coastal ecosystems (which can have their quality affected by the management of freshwater, with consequences on marine ecosystems and economic activities);

CONSIDERING that water policy is a shared responsibility across national and sub-national levels of government; that different mandates and levels of autonomy apply in different countries; that the implementation of water management should be co-ordinated, coherent and consistent across all levels of government; and that this Recommendation is accordingly relevant to national and sub-national levels of government;

RECOGNISING that water resources and water-related ecosystems have natural bio-physical features that may or may not align with administrative boundaries, and that transboundary water co-operation between riparian countries based on win-win solutions may contribute to sustainable development and management of water resources;

CONSIDERING that an integrated approach for the management of water and water-related ecosystems is necessary because water resources and water services are affected by initiatives taken in a wide range of policy domains (e.g. finance, land use, forestry, urban development, energy production, climate change mitigation and adaptation, mining, agriculture, transport, infrastructures);

RECOGNISING also that management of water and water related ecosystems pursues several objectives, including: the protection and restoration of water resources and of water-related ecosystems and their capacity to provide essential services; the safeguarding and restoration of the hydrological cycle; the provision of adequate water supply in time, both in terms of quantity and quality, to meet domestic, environmental, industrial, agricultural and other demands over time; the management of water services; the management of trade-offs to balance water supply and demand; the prevention and management of risks of water-related disasters, and adaptation to the effects of climate change.



1

AGREES that, for the purpose of the present Recommendation, the following definitions apply:

- **Green infrastructure** in the context of water resources management refers to a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services.
- **Scale** (for water management) refers to the multiple geographical and administrative units that are relevant for the management of water resources and water services, such as catchment, city, basin, regional, national, or transboundary levels.
- **Water allocation regime** refers the combination of policies, mechanisms, and governance arrangements (e.g. entitlements, licenses, permits) used to determine who is allowed to abstract water from a resource pool, how much may be taken and when, as well as how much must be returned (and of what quality; e.g. to protect and restore water-related ecosystems), and the conditions associated with the use of this water. In this document water allocation refers to the national parts of rivers, lakes and aquifers.
- **Water entitlement** refers to the entitlement to abstract and use water from a specified water resource pool, which may also be defined as a water right, a water users' right, a water contract, an abstraction licence or permit.
- **Water resources** refer to water that occurs on the surface (i.e. lakes, rivers, wetlands, estuaries and coastal areas) and groundwater.
- **Water risks** refer to the risks, in terms of their potential likelihood and impact, of water shortage (e.g. droughts), water excess (e.g. floods), water pollution, and the risks of undermining the resilience of water-related ecosystems.
- **Water-related disasters** refer to floods, droughts, water pollution, and water-related disease outbreaks that have a high impact on health, wellbeing, assets and ecosystems and that have detrimental impacts on food and energy security, commodity prices, international relations or can lead to social unrest.

- **Water-related ecosystems** include wetlands, rivers, aquifers, lakes and interrelated components of the surrounding landscape (mountains and forests). They also include coastal ecosystems.
- **Water services** refer to services that abstract and convey water to where it is used, and that collect and treat wastewater before it is reused or returned to the environment.
- **Water uses** refer to activities and functions that demand a certain amount of water at a certain time and place and of a specific quality, including agricultural, industrial, fishing, recreational and shipping activities, energy production, domestic use (including drinking water) and water-related ecosystem and cultural functions.

2

RECOMMENDS that Members and non-Members having adhered to this Recommendation (hereafter the “Adherents”) set up and implement water policies that:

1. Are adjusted to local conditions.
2. Are based on long term water management plans, preferably at river basin, or aquifer level, and, as appropriate, in a transboundary framework. Such plans should foster conjunctive management of surface and groundwater, and be regularly reviewed and updated. They would benefit from stakeholder consultation.
3. Encourage the joint management of water quantity and quality, and pay attention to the hydro morphological characteristics and temporal variability of water bodies, as these affect water quantity, quality, disasters, and water-related ecosystems.
4. Address practices, trends and developments that affect water availability, water demand, and exposure and vulnerability to water risks; reflect their wider economic, social and environmental consequences, at different scales.
5. Facilitate the development and diffusion of innovative and more efficient ways to manage water, based on technical and non-technical innovations.
6. Are designed in accordance with the following recommendations for managing water quantity, improving water quality, managing water risks and disasters, enhancing effective governance, and aiming at sustainable finance and investment for the water sector.

MANAGING WATER QUANTITY



3

RECOMMENDS that Adherents manage water quantity at the appropriate scale and, depending on the availability of water resources, through the combination of:

1. Water demand management policies at national or sub-national levels of government, which:
 - Reflect short and long term projections and account for uncertainties on current and future water availability and demand; and
 - Are based on water management plans that build upon an understanding of the ecologically sustainable limits of the system, account for all the social, economic and environmental functions of water while preserving water resources. Where needed, water supply can be augmented in sustainable ways, e.g. through modular, scalable approaches to green and grey infrastructure, or the use of reclaimed water.
2. The promotion of water use efficiency to alleviate pressure on all surface and groundwater resources, especially where water is scarce and competition between sectors intensifies, whilst taking into account the need for groundwater recharge and environmental flows. That promotion can include the consideration of economic instruments for water resources management (e.g. water abstraction charges), support for water-efficient technologies or for the use of alternative sources of water (e.g. reclaimed water).

3. Water allocation regimes that define a sustainable resource pool and:
 - Allocate water and the risk of shortage in a manner that is non-discriminatory and that reflects wider policy objectives (e.g. access to drinking water, ecosystems health, food or energy security), under both average and extreme conditions, including through balancing all interests in basins and considering the cost-effectiveness of measures;
 - Are dynamic, flexible and adjusted to shifting circumstances at the least social cost;
 - Promote efficient water use, investment and innovation, with due regard for social consequences and the ecosystem-support function of water;
 - Are responsive to the customary practices of traditional communities; and
 - Promote compliance and enforcement (i.e. of water entitlements) in national and sub-national contexts.
4. Collective management approaches, such as collective entitlements, where applicable, in areas where little information is available on water availability and use, or where the transaction costs of managing individual entitlements are too high (e.g. for groundwater management).
5. Improved knowledge of water use and sustainability limits, and improved monitoring of water resources and uses, watershed conditions, ecosystems health and the interconnections between surface and groundwater, to better assess environmental needs and future water availability and make more robust decisions.



IMPROVING WATER QUALITY

4



RECOMMENDS that Adherents prevent, reduce and manage water pollution, from all sources (diffuse and point sources), in surface and ground waters and related coastal ecosystems, while paying attention to pollutants of emerging concern.

To that effect, Adherents should:

1. Allocate adequate human, technical, scientific and financial resources to:
 - Assess water and effluent quantity and quality. Water quality monitoring should be developed and publicly reported.
 - Identify sources of pollution (diffuse and point sources), and for the most relevant pollutants, assess the concentrations, total amounts and timing of discharges.
 - Set policy objectives and targets to achieve and maintain assigned water quality standards in water bodies, in order to protect designated uses and water-related ecosystems, taking into account water quality requirements for all water uses.
 - Improve standards for water quality target setting, building on the latest scientific knowledge and the most cost-effective technologies.
 - Assess the investments necessary to achieve the desired level of water quality and to protect and restore water-related ecosystems, taking account of cost-effectiveness related to human and ecosystem health benefits.
2. Identify, assess and endeavour to mitigate risks associated with investments that negatively affect the natural integrity of rivers, lakes, aquifers and wetlands, their hydro morphological conditions, the natural water retention capacity of the basins or ecosystem functioning.
3. Take measures to reduce, to the extent necessary, the pollution of all waters and in particular the pollution of surface waters resulting in eutrophication, with particular reference to the problem arising from the transfer of nutrient-loaded waters across frontiers or to the sea. These measures should ensure compliance with the water quality objectives and targets mentioned above.

4. Foster the most cost-effective measures for improving water quality, whilst keeping polluters and users accountable as much as possible through:
 - A targeted action on pollutants of particular significance at the appropriate scale (catchment, basin, or aquifer), on the basis of such characteristics as toxicity, persistence, bio-accumulation, and risk to human and environmental health.
 - The application of pollution control measures as close to the source as possible taking into consideration alternative cost-effective options in case of disproportionate costs.
 - Integrated pollution control so that water pollution control measures do not lead to uncontrolled pollution transfers to other water resources or to soil or air systems.
5. Consider the most cost-effective measures to tackle water quality issues, whilst applying the Polluter Pays Principle as much as possible where it is mentioned in the legal and regulatory framework, and promoting it where absent.
6. Combine regulatory, voluntary and economic instruments to provide continuing incentives for polluters to reduce and control pollution of water resources.
7. Set up mechanisms to monitor and enforce compliance with regulatory provisions. Enforcement should be targeted, making use of all available data sources. It should build on clear, transparent and proportionate enforcement rules, procedures, penalties, incentives and tools to achieve regulatory objectives cost-effectively.
8. Take measures to protect, restore and promote sustainable use of water-related ecosystems, halt and reverse degradation, and halt biodiversity loss.
9. Take the following measures to address sector-specific issues:
 - Foster coherence between water and **sectoral policies**, e.g. industry, energy, nature, drinking water, health care and agriculture. For the latter, identify and reduce to the greatest extent possible any harmful incentives and practices that have adverse environmental or water-harmful effects (e.g. subsidies for fertiliser and pesticides that are harmful to water).
 - Adopt the appropriate financial, managerial and technical measures to ensure that **wastewater treatment systems**: are built and operated in a cost-efficient manner; take into consideration the topography and future population trends; contribute to water quality objectives; and allow for resource recovery, energy and water efficiency and reuse to conserve water.
 - Pay particular attention to achieving sustainable management and conservation of **fishing resources** and other aquatic life in freshwater and related coastal areas at the local, national and international levels, and ensure co-ordination of all relevant authorities, to the extent possible.

MANAGING WATER RISKS AND DISASTERS



5

RECOMMENDS that Adherents manage water risks and disasters in a co-operative way, adopt and regularly review a water risk management policy as an element of an all-hazards approach to country risk governance.

To that effect, Adherents should:

1. Prepare for water-related disasters by investing in:
 - Risk assessment to help prioritise disaster risk reduction, emergency management capabilities and the design of financial protection strategies (which are used to manage the financial impact of disasters, ensure adequate capacity to manage and mitigate the costs of disaster risk, thereby reducing the financial burden and economic costs of disasters and enabling rapid recovery in economic activity). Depending on issues at stake, risk assessment could take account of private responses (adaptation) to risk and reactions to disasters (response).
 - Risk awareness of population, communities and business exposed or affected.
 - Setting, and regularly revising acceptable levels of water risks, that reflect societal values.
 - Risk prevention and mitigation through a mix of structural protection measures (i.e. engineering or civil work prevention measures aimed at reducing exposure to hazards by protecting assets or communities, or controlling the variability of natural phenomena) and non-structural measures to prevent and reduce risks (including ecosystems based solutions and green infrastructures, when appropriate), and, where needed, the provision of incentives and tools to foster private self-protective and resilience building measures.
 - Emergency response capabilities for both known hazards and threats as well as novel, unforeseen and complex events.

- Social policies and financial mechanisms to mitigate the welfare impacts of losses and ensure a quick recovery and reconstruction that reduce future vulnerability.
 - Transparency, accountability and public awareness in water risk-related decision-making.
2. Improve policy coherence across climate change adaptation, water management, land management, spatial planning, ecosystem and biodiversity protection and disaster risk reduction.
 3. Take into account the specificities of water risks related to climate change for agriculture, in particular by fostering an enabling environment for adaptation of agriculture and water systems and by combining the dimensions and scales whereby climate, water and agriculture policies intersect.
 4. Take into account the specificities of water risks related to cities, acknowledging that urban areas and their hinterland are interconnected through watersheds and groundwater systems, and, in particular use urban policies and infrastructure finance to promote water sensitive urban design.



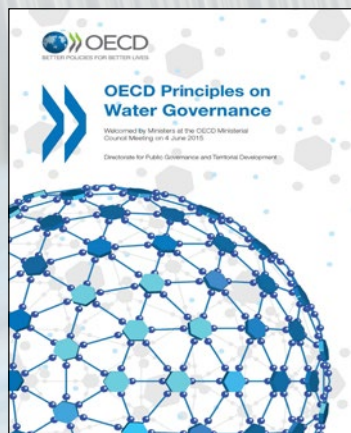
ENSURING GOOD WATER GOVERNANCE



6 RECOMMENDS that Adherents enhance the effectiveness and efficiency of, and trust and engagement in water governance, taking into account the specificities of governance for groundwater management.

Water governance encompasses political, institutional, and administrative rules, practices, and processes (formal and informal) through which decisions are taken and implemented, stakeholders can articulate their interests and have their concerns considered, and decision-makers are held accountable in the management of water resources and the delivery of water services. To that effect, Adherents should:

1. Clearly allocate and distinguish roles and responsibilities for water policymaking, policy implementation, operational management and regulation, and foster co-ordination across these responsible authorities.
2. Manage water at the appropriate scale(s) within integrated basin governance systems to reflect local conditions, and foster co-ordination between the different scales.





3. Encourage policy coherence through effective cross-sectoral co-ordination, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use.
4. Adapt the level of capacity of responsible authorities to the complexity of water challenges to be met, and to the set of competencies required to carry out their duties.
5. Produce, update, and share timely, consistent, comparable and policy-relevant water and water-related data and information, and use it to guide, assess and improve water policy.
6. Ensure that governance arrangements help mobilise water finance and allocate financial resources in an efficient, transparent and timely manner.
7. Ensure that sound water management regulatory frameworks are effectively implemented and enforced in pursuit of the public interest.
8. Promote the adoption and implementation of innovative water governance practices across responsible authorities, levels of government and relevant stakeholders.
9. Mainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making.
10. Promote stakeholder engagement for informed and outcome-oriented contributions to water policy design and implementation.
11. Encourage water governance frameworks that help manage trade-offs across water users, rural and urban areas, and generations.
12. Promote regular monitoring and evaluation of water policy and governance where appropriate, share the results with the public and make adjustments when needed.

ENSURING SUSTAINABLE FINANCE, INVESTMENT AND PRICING FOR WATER AND WATER SERVICES

7

RECOMMENDS that Adherents set up measures for the sustainable financing of water services, water infrastructures, water resources management and protection of water-related ecosystems.

To that effect, Adherents should:

1. Consider the following four principles for financing water resources management: Polluter Pays, Beneficiary Pays, Equity and Coherence between policies that affect water resources.
2. Aim for the greatest social returns to investment, for example through:
 - exploring options that can minimise current or future financing needs while addressing trade-offs and exploiting synergies between policy objectives and between short and long term challenges;
 - taking stock of existing assets, maintaining them, looking for efficiency gains;
 - developing strategic financial plans that match financial resources with policy objectives, and ensure affordability for vulnerable segments of society, including through ad hoc targeted measures; and
 - setting up an independent review of efficiency and cost-effectiveness of investments.
3. Consider diversifying revenue streams and tapping into new sources of capital, where needed and in line with policy objectives. A first step could be to combine revenues from water tariffs, transfers from public budgets and transfers from the international community (i.e. the 3Ts) to recover the costs of investment, operation and maintenance of water infrastructure as much as possible and where efficient.



RECOMMENDS that Adherents consider establishing pricing instruments where appropriate and applicable...

... in combination with other instruments (e.g. regulatory, voluntary or other economic instruments), to manage water resources (in particular water conservation), phase out negative externalities (e.g. overuse, pollution) and improve the financial sustainability of water infrastructures and water services. Economic instruments should reflect each country's social and economic conditions. Adherents that are considering pricing instruments would benefit from:

1. Setting abstraction charges for surface and ground water that reflect water scarcity (i.e. environmental and resource cost) and that cover administrative costs of managing the system.
2. Setting water pollution charges for surface and groundwater use and pollution or charges for wastewater discharge at a sufficient level to have a significant incentive effect to prevent and control pollution.
3. Setting tariffs or charges for water services and all other uses that cover the operation, maintenance and renewal costs of infrastructure and a progressive proportion of capital costs, where possible.
4. Accounting for redistributive consequences and priority water uses, based on affordability studies, equity for vulnerable groups and assessment of competitiveness impacts, as appropriate, taking into account the right to safe drinking water and sanitation.
5. Phasing out price-distorting policy measures and general subsidies that affect water availability, quality and demand, to the extent possible, taking into account broader public policies and priorities.
6. Considering transaction costs, including administrative costs, when designing pricing instruments and revenue management schemes.

The full text of the Recommendation of the Council on Water is available at:
<http://oe.cd/rcwater>

**Please check the OECD database of legal instruments for additional information
and any future updates:**
<http://acts.oecd.org/Default.aspx>

OECD non-Members wishing to adhere to the Recommendation on water are invited to contact:
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Explore OECD work on water at:
<http://www.oecd.org/water>

Contact

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