QUICK TIPS

INTEGRATING THE ENVIRONMENT AND CLIMATE CHANGE IN WATER RESOURCES MANAGEMENT

Water is essential to life and crucial to achieve the Sustainable Development Goals (SDGs) of the 2030 Agenda, our global climate and environmental ambitions, EU policy priorities or our many other aspirations for a prosperous, peaceful and sustainable world. Yet, freshwater and marine ecosystems representing important biodiversity and surface and groundwater resources continue to decline in many regions at a fast rate. The deterioration of these ecosystem services and growing water scarcity affects (our) quality of life and exacerbates climate change, which impacts water security. Water is the primary vehicle through which we feel the impacts of climate change. Water-related hazards such as floods and droughts cause the most economically and socially destructive disasters.

The EU Water Framework Directive and related directives such as the Floods Directive provide a vision for basin-wide and transboundary planning and management preserving 'good ecological status' of water bodies and fostering climate resilience. The European Commission's *International Partnerships Priorities* including the European Green Deal and the UN Agenda 2030 provide green and sustainable pathways to address the planetary crisis and to fight climate change with actions to foster growth, eradicate poverty and ensure peace and security.

The following note provides **quick practical tips** for policy, investment and capacity-development interventions, matched to local contexts, which aim to mainstream environmental and climate change aspects within **integrated, sustainable, participatory and conflict-sensitive management of water resources** (see also WASH and DRR Quick Tips).

Harness the power of ecosystems within river basin planning and management

- Promote basin-scale ecosystem conservation and restoration investments, based on monitoring and knowledge about water quantity and quality requirements, called 'environmental flows' for **healthy freshwater and coastal ecosystems**, including groundwater-dependent wetlands or lagoons.
- Support **watershed protection schemes**, such as payment-for-ecosystem-services, to link downstream and upstream communities, and protect vital headwaters and recharge areas, for example, forests, glaciers, wetlands and lakes, from unsustainable land-use practices.
- Harness **nature-based-solutions** ("*green where possible, grey where needed*") for improved resilience, including natural water retention measures (floodplains, wetlands and mangroves) to minimise flood and drought risks (see also Infrastructure Quick Tips), and 'soft' investments such as early warning systems and improved spatial planning, hampering construction in floodplains and fostering 'sponge cities' (see green cities QTs).
- Dismantle obsolete infrastructures to recover **free-flowing rivers**; restore water, nutrients and sediment flows to deltas, estuaries, coasts and beaches; and recover biodiversity migration corridors, which many species depend upon.

Reduce the unsustainability of water use

- Put in place equitable and productive **water rights regimes** based on basin-level water accounting and management plans to prevent that improved water efficiency results in increased water consumption.
- Avoid policies and actions that lead to the drainage and conversion of **wetlands and peatlands**, which are essential carbon sinks, hydrological buffers and biodiversity reservoirs.
- Develop measures and incentives for **water savings and conservation** (water metering, rainwater harvesting, establishment of water user associations, reduction of subsidies to water use, progressive water tariffs).
- Ensure investments (e.g. **dams, reservoirs, hydropower, irrigation infrastructure or desalinisation** plants) are carefully planned and implemented, considering the social and environmental trade-offs as well as greenhouse gas emissions and evaporative water losses from reservoirs, and the resilience of power generation and water storage in a changing climate.
- Support the development of cross-sector strategies and upstream-downstream stakeholder dialogues to address the **causes** of environmental degradation.
- Systematically assess and factor in the value of **ecosystems and their services** (such as food provision, water purification, flow regulation, cooling and aeration, etc.), when developing policies and projects affecting water resources and water ecosystems.
- Apply risk assessments (and projections) under climate change scenarios as a way of **climate proofing** all water infrastructure (see also Infrastructure Quick Tips).
- Support **climate-smart agroecology-based agriculture**, consuming less resources and retaining carbon, soil structures, nutrients and moisture. (see also Food and Agriculture Quick Tips).
- Stimulate the respect for water by economic activities, applying the **polluter-pays-principle** and adopting **circular-economy** production patterns, as the resource recovery from wastewater (treated water, nutrients, energy).
- Explore digital opportunities to improve and adapt **water resources allocations** to climate change scenarios and to control its compliance, e.g. avoiding illegal and unsustainable water use.

Support awareness, co-creation, innovation and dissemination of knowledge

- Conduct public **awareness campaigns** on sustainable water management targeting schools, communities, agriculture and business, mainstreaming the link with the environment and climate change.
- **Empower communities** to develop conflict-sensitive water management, e.g. helping flood-prone communities to adapt to climate change.
- Build environmental and climate resilience **skills** with professional associations, partnerships, universities and using Twinning instruments or similar.
- Generate **knowledge**, for example on water-related risks and ecosystem services, by promoting local research & innovation on climate and environmentally sustainable water management.

Support sustainable management of transboundary waters

- Apply **water diplomacy** to enhance the environment and promote resilience against the climate vulnerability of water in rivers, lakes, aquifers and oceans.
- Encourage EU partner countries to **adopt and apply the UNECE Water Convention**, especially to prevent, control and reduce the pollution of waters, to ensure sound and rational water management, conservation of water resources and environmental protection, and the conservation and, where necessary, restoration of ecosystems.
- Encourage agreements through **cross-country collaboration platforms** and joint initiatives – such as transboundary river basin organisations - to improve water management, build climate resilience, build climate resilience, meet human rights obligations, protect livelihoods and guard against possible migration and conflict.

Align with national, EU and global environment and climate commitments

- Assess if national water and environment policies **support international ambitions**, such as the Sustainable Development Goals (SDG 13 Climate Action, SDG 14 Life below Water, SDG 15 Life on Land), Paris Agreement (and NDCs), Sendai Framework for Disaster Risk Reduction 2015-2030, post-2020 Global Biodiversity Framework, Ramsar Convention on Wetlands; verify how the activities proposed will contribute to the Rio Conventions (See Rio Markers QT).
- In particular, ensure water and sanitation policies are aligned with **climate commitments** and include them in countries' Nationaly Determined Contributions (NDC) and National Adaptation Plans (NAP).
- **Align proposed actions** with the EU Green Deal (including Farm-to-Fork, Biodiversity, EU Adaptation and Circular Economy strategies) and explore opportunities for EU financed water projects to contribute to the EU commitments on climate finance and doubling biodiversity financing to developing countries.
- Systematically promote the Strategic Environmental Assessments (SEA) and water management plans when supporting water-related policy work or large-scale water infrastructure developments.
- Systematically apply robust ESG standards and the use of the Environmental Impact Assessment (EIA) and/or Climate Risk Assessment (CRA) when supporting large water-related projects, in order to identify risks.

Further information and support

- European Consensus on Development, confirming EU and Member States' commitment to promoting integrated water resources management, conservation of water resources, and enhanced water-use efficiency and recycling.
- European Investment Bank's Environmental Climate and Social Guidelines on Hydropower Development
- UNESCO Chairs on water-related Disasters and Hydrological Changes
- United Nations Convention to Combat Desertification Drought Toolbox
- Water and Climate Coalition

* All documents are available on capacity4dev public groups on Environment, Climate Change and Green Economy, and on Water and Sanitation.

Contact INTPA and NEAR Environment & Climate Change Mainstreaming Facility:
INTPA-GREENING-FACILITY@ec.europa.eu | NEAR-GREENING-FACILITY@ec.europa.eu
Contact the INTPA Water Sector at INTPA-F2-WATER-SECTOR@ec.europa.eu