INTEGRATING THE ENVIRONMENT AND CLIMATE CHANGE IN WATER, SANITATION AND HYGIENE (WASH)

Water is essential to life and crucial to achieve the Sustainable Development Goals (SDGs) of the 2030 Agenda, our climate and environmental ambitions, EU policy priorities or our many other aspirations for a prosperous, peaceful and sustainable world. Access to safe and clean water, and adequate sanitation and hygiene are human rights, which millions of people around the world still lack: only 71% of the world's population use a safely managed drinking water service, 45% a safely managed sanitation service and 60% have access to a basic handwashing facility. This access gap to Water, Sanitation and Hygiene (WASH) limits equal chances to be healthy, educated, employed and financially secure. Safely managed water and sanitation services and basic handwashing facilities at home, school, health care facilities and the work place are critical to preventing pollution and the spread of communicable diseases and to preserving a healthy environment.

Climate change and environmental degradation impact WASH, since water supply and quality depend on the natural water cycle and healthy ecosystems. Reversely, poorly designed WASH can contribute to climate change and environmental degradation, despite sanitation being a key component for downstream environmental protection. The European Commission's *International Partnership Priorities* including the EU Green Deal actively contribute to the universal WASH agenda, and foster sustainable development with the primary aim of eradicating poverty.

This note provides **quick practical tips** to integrate environment and climate change aspects in policy, investment and capacity-development measures on Water, Sanitation and Hygiene, as a part of integrated water resource management (see also Quick Tips on Water Resources Management).

Improve awareness and commitment of utilities, citizens and customers to mainstream climate and environmental agendas

- Conduct **communication campaigns**, targeting primary and secondary schools (as access points to entire families) on dissemination of WASH benefits for environment and health.
- Develop **customer water awareness and conservation programmes**, with emphasis on 'reducing, reusing, recycling', circularity, water efficiency, pollution limitation and climate change and its causes and impacts.
- Reduce **water consumption** by installing low-flow plumbing devices at homes and businesses, rainwater-harvesting tanks for watering home vegetable gardens or buildings' water internal uses.
- Reduce water leakages by conducting leak detection and repair campaigns in piped networks and monitoring water use by large-scale customers to identify leaks through unusual consumption patterns.
- Promote environmentally friendly local **hygiene products/practices** (soap/reusable non-plastic products).
- Develop **community action plans** for disaster risk reduction and climate change adaptation, including to safeguard ecosystems and water sources, and early warning systems for droughts, floods and other climate- and water-related hazards. (see also Green Cities and DRR Quick Tips).
- Support networks of users for **knowledge and capacity development** on the environmental and climate change aspects of WASH (e.g. Water Operator Partnerships, city networks).

School awareness campaign in Calcutta, India

Reduce the risks of failing water supplies

- Establish **watershed protection schemes**, such as **payment-for-ecosystem-services**, to link downstream and upstream communities, and to protect vital headwaters and recharge areas, for example forests, mountains, glaciers, wetlands and lakes, from unsustainable land use practices. This can take place within river basin management plans.
- Undertake **risk assessments** (e.g. on the impacts of curtailed or insufficient water supply) including under different climate change, land-use, population, policy and other scenarios that impact water availability; climate-proof infrastructure (siting to avoid flood-prone areas, planning reliability of water sources based on climate change projections); see also Infrastructure Quick Tips.

Lower the carbon footprint of water and sanitation

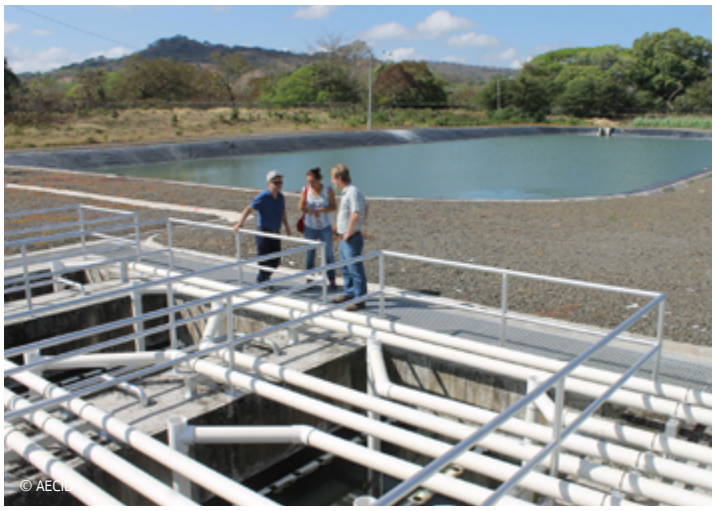
- Complete **energy audits** of facilities and upgrade electrical-mechanical equipment, such as pumps for increased energy efficiency.
- Promote **renewable energies**, e.g. incorporating solar water pumps and solar lighting at WASH facilities, solar or wind energy generation at utility facilities such as dams/reservoirs and desalinisation plants, biogas generation at sewage treatment plants, or mini-hydropower generation units in suitable gravity transmission pipelines.
- Reduce GHG emissions by including **low-energy consumption water and waste water treatment processes**, and applying '**green technical specifications**' for investment projects, e.g. to ensure the use of 'green cement' and recycled materials in construction; see also Infrastructure Quick Tips.

Reduce the environmental impact of water and sanitation

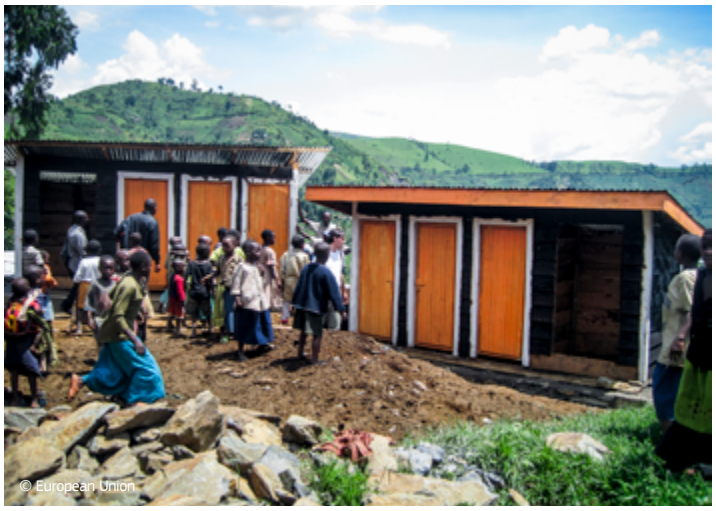
- Apply **waterless sanitation** (ecological sanitation systems which require neither water nor sewerage systems for their operation, for example containerised toilets which function through evaporation and dehydration processes) in suitable (rural) contexts to reduce water consumption and address the potential environmental impacts of latrines.
- Reduce the **overflow risk** of sewerage systems and wastewater treatment plants or septic tanks, by climate-proof siting (avoiding flood-prone areas) and design, including robust regular maintenance systems.
- Prioritise the realisation of **wastewater treatment plants** for sensitive areas and vulnerable ecosystems (e.g. upstream of protected wetland areas and water sources for settlements).

Promote circular economy at wastewater treatment facilities

- Support treatment for **safe water reuse** in irrigation and industry or buildings, especially in water-stressed areas; by establishing policy, regulation, pilot projects, infrastructure and governance schemes.
- Promote waste water treatment in polluting industries (agro-processing, slaughterhouses,...) and, where feasible, recover **nutrients** (nitrogen, phosphorus) from sewage for reuse in agriculture.
- Integrate solar and biogas **energy generation at treatment plants**, especially for large urban areas; explore and implement options for sludge treatment, disposal and/or use.



Wastewater treatment plant in Masaya, Nicaragua.



Latrines for the children attending classes in Lushebere.

Align with national, regional, 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 and Circular Economy strategies, Blue Economy, ...) and explore opportunities for EU financed water projects to contribute to the EU commitments on climate finance and doubling biodiversity financing to developing countries.
- Provide technical assistance to strengthen the **institutional capacities** on the environment, disaster risk reduction and climate change, e.g. by using Twinning instrument or similar, and ensure that environmental and social safeguards used by lead and intermediary financial institutions (such as, in blending mechanisms) are consistent with EU standards.
- Use **established procedures** as Environmental Impact Assessment (EIA) and/or Climate Risk Assessment (CRA) to identify risks and measures for minimising adverse impacts on and exploit opportunities for the environment and on climate.

Further information and support

- European Consensus on Development, confirming EU and Member States' commitment to increasing access to water, sanitation and hygiene services
- EU Human Rights Guidelines on Safe Drinking Water and Sanitation
- EU Green Public Procurement
- EU Water reuse
- United Nations on Sustainable Development Goal 6
- Sendai Framework for Disaster Risk Reduction 2015-2030
- UNICEF
- International Federation of Red Cross and Red Crescent Societies (IFRC)

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

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