



Case Study // Round Table SDG 6 - Sharing water: balancing competing needs in a context of declining resource

Water quality in Switzerland – connecting drops at different depths

Switzerland

Levels: national, subnational and local

Summary

Water scarcity is not just about quantity, but also on quality. Raising water temperature affects water quality by the propagation of algae impacting drinking water from lakes and rivers.

Safeguarding water quality amounts to multitasking through sectors, with tools and different levels of federal, cantonal and communal administration in Switzerland, criss-crossing water bodies basins:

- Using diverse instruments (laws, Payments for ecosystem services, promotion of sustainable agriculture, green infrastructure) to decrease nitrates and phosphates pollution.
- Preventing micropollutants (contained in medicine, cleaning, phytosanitary, as well as cosmetic products and biocides) with an Action Plan on the sustainable use of phytosanitary products connecting health, agriculture and environment or installing technology in wastewater treatment plants, with priority to those close to the borders upstream international rivers.
- Renaturation of rivers through a cooperation between environmental protection, hydropower and agriculture, while enhancing flood protection, as well as fauna and flora.
- Implementing development aid programmes on water quality in water stressed countries across the world base on the Swiss experience

Situation

Switzerland should have sufficient water resources in the future (1500 lakes, many rivers, groundwater, glaciers and snow) although seasonal scarcity events do occur. Agricultural pollution through nitrate and phosphate decreased. 97% of the population is connected to a wastewater treatment plant. By 2040, more than 50% of wastewater will be treated for micropollutants, a new challenge. The supplementary treatment cost will be 9 CHF/person/year, adding to classical cost wastewater treatment 20-70 CHF/month for a family of four. This is based on full cost recovery based on user – polluter pays principles.

The morphology of rivers has been greatly modified over more than 40% of its length, 22 % of rivers are in a bad ecomorphological state and 85 % wetlands are threatened.

Strategy

Using a whole range of tools at different levels and moments: Laws and ordinances drive the implementation through multiple actors from the public and the private sectors, from water, energy, agriculture, tourism, etc. Adding to this regular cross-sectoral dialogues and information, education, products use guidance, technical guidelines on IWRM, payments for ecosystem services, adequate technology and full cost recovery.



Results and impact

- Improved water quality and protection against floods
- Protection and restoration of ecosystems
- Better health
- More awareness on products and their use (informed choice when shopping)

Challenges and lessons learned

- After focusing on larger rivers, actions are taking place to improve the smaller ones.
- The importance of water-related ecosystems to water management (link with SDGs 7 and 15)
- The general challenge for water specialists to be obliged to develop end of pipe technology for many common (household and cosmetic) products which residues should never land into water in the first place (links with SDG 12 on SCP and 11 on cities)

Potential for replication

The Swiss experience can be replicated as many wastewater treatment plants are at the point of needing refurbishing across the region.

Dialogue on water with the sector of agricultural is crucial in the region, while engagement with hydropower is also essential

The cooperation across ministries and sectors, including across the different levels of public administration (national to local) is essential but it needs time, open communication and trust.

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