



## Water, Energy, Transport

# Water Resources Management

### The challenge

Human water use has an impact on both the quality and the availability of water, and thus on our environment. For instance, major infrastructural projects on (transboundary) rivers and lakes create benefits, but in many cases also have negative effects on people and the environment. The changing climate is also affecting the hydrological balance of rivers and lakes. In recent years, this has led to more droughts and flooding— with severe consequences for people and animals. Animal and plant habitats can be destroyed by a decrease in the quantity or quality of water available. As a result, inland waters, such as rivers, lakes, wetlands and groundwater, can no longer provide key ecosystem services.

Conserving this irreplaceable resource poses a challenge given the large number of competing forms of use in households, agriculture, industry and ecosystems.

### Our approach

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH meets these challenges by providing advisory services on water resources management that focus on cooperative, integrated solutions.

**Transboundary water management:** We support our partners in managing shared water resources for the benefit of all riparian countries and across borders. Partnerships between riparian countries help to institutionalise cross-border cooperation in other areas too, thereby preventing potential conflicts.

**Climate-sensitive water management:** We help to mitigate climate impacts by using water-efficient and energy-efficient techniques, to develop adaptation strategies within and under the responsibility of the water sector and to implement them in cooperation with other sectors, such as energy and food security.

Among other things, our advisory services focus on climate-sensitive planning processes in the water sector, on using ecosystem services to adapt to climate change and on flood risk management approaches.

**Water, environment and biodiversity:** We help to ensure the environmentally sustainable use of water resources, thereby preserving biodiversity and making ecosystems more resilient.

### Our services

We provide advisory services at the political, organisational and technical level in the three areas mentioned above.

We advise river basin organisations and their member countries on negotiation processes, on the set-up and organisational development and on financial independence. We support our partners in performing vulnerability and risk analyses within the context of flood management. We work with our partners to develop concepts for water resources management and watershed management. We assist our partners in developing ecosystem-based adaptation and disaster prevention methods, especially to manage flood risks.

Our range of advisory services also covers issues such as environmental protection, restoration strategies, gender issues, such as promoting careers for women, and the water-energy-food security nexus.

GIZ strengthens partnerships and cooperation between sectors and administrative levels by moderating stakeholder dialogues. We provide support on information and knowledge management and offer technical training, management skills training and professional development for executive-level staff.



## The benefits

Having carried out a large number of water, climate and environmental projects around the globe, GIZ can draw on many years of experience in the field. This allows us to offer cross-sectoral, tailor-made solutions. Building capacity, resources and efficiency is a central element of our work, both in advising institutions and in working in partnership with water and wastewater companies, the private sector and the local population.

Our partners benefit from our services in a wide range of ways. Successful cooperation ventures on transboundary waters serve as a catalyst for joint water resources management projects that boost regional economic development. Cooperation between countries and sectors builds trust and reduces prejudice. Effective institutions and skilled professionals are essential in promoting the sustainable development, distribution and use of water resources.

## An example from the field

Acting on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), GIZ is supporting the Southern African Development Community (SADC) in the sustainable management and development of its transboundary surface and groundwater resources.

Water plays an integrative role and promotes cooperation and peace among the 15 SADC member states. The progress made so far must be consolidated in the long run, especially since key water resources have now been largely ex-

hausted, particularly in South Africa, Botswana and Namibia, the main drivers of growth in the region. Moreover, forecasts predict that precipitation in the region will become even more variable as a result of climate change. This may also put economic and social development at risk in the medium to long term.

We are supporting the development of the SADC Secretariat in Botswana and important subsidiary river basin organisations. We have recently extended this work to local water authorities in member countries.

A further priority area is the elaboration of development and management plans for river basins based on the principles of Integrated Water Resources Management (IWRM). These plans are drawn up in cooperation with other donors. Against this backdrop, the UK's Department for International Development (DFID) has delegated its regional water portfolio to BMZ/GIZ.

Local pilot projects serve as models for other border regions. A successful example is the water supply project for Angola's Kunene province on the border with Namibia. In this project, GIZ is supporting the establishment and organisational development of Angola's new water utility.

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