



Dams and Environment



Although the International Commission on Large Dams (ICOLD) was initially mostly concerned with security, it became pretty early concerned with the subject of environment. Environment was first discussed during the 1973 Congress, one year after the first UN Environment summit of Stockholm. The first Technical Committee devoted to the subject was created in 1977 and the first Technical Bulletin appeared in 1981. In 1997, ICOLD published a document that presents guidance for environmental consideration, assessment and mitigation: "Position Paper on Dams and the Environment". It states: "Increased awareness of the natural environment and its endangered situation is one of the most important developments of the late 20th century."



One of the fundamental requirements for socio-economic development throughout the world is the availability of adequate quantities of water with the appropriate quality and an adequate supply of energy. Hydropower is a renewable source of energy and supplies about 20% of the world's needs. Properly planned, designed and constructed and maintained dams contribute significantly toward fulfilling our water supply and energy requirements. To accommodate the variations in the hydrologic cycle, dams and reservoirs are needed to store water and then provide a consistent discharge to maintain the required daily flow in our rivers throughout the year.

Rivers are a vital link in the hydrological cycle of water systems. They carry water from the river basin downstream to the ocean and support fish and wildlife habitat. Our societies and ecosystems depend on these functions of a river. Dams and reservoirs which are properly located in the river basin do not alter the natural geometry of the river and their discharges provide the necessary flow to enhance water quality, maintain daily quantities of flow for regional and local use as well as support the natural habitat.

Today, multipurpose dams are being planned, constructed and operated with a balance between the economic and environmental benefits. This process includes stakeholder involvement. The social and environmental impacts of the dams are being addressed and mitigated. Conservation of the natural habitat is part of the design of a dam project.

Wise management of the water in our rivers and streams has become an essential element to nation building. Dams and reservoirs to enable us to apply integrated water management so that we do not have dry streams for most of the year. The goals of regional integrated water management in the watershed are:

- ▶ Improved management of the water supply

- ▶ Improved water quality in our rivers
- ▶ Improved environmental conditions in the watershed

You can read [here](#) the Position Paper on Dams and the Environment