



## CASE STUDY

# Transboundary: Reversal of land and water degradation in Lake Chad

## Summary

Lake Chad is an important resource, both in terms of economic development and biodiversity. However, unsustainable management of natural resources, population increase and desertification pose severe challenges. Action has been taken by the WWF and its partners to promote sustainable management. This case illustrates that independent organisations, such as WWF, can play a unique role as a catalyst and facilitator for change.

## Background

Lake Chad is now Africa's fourth largest lake, with a maximum extent of 25,000km<sup>2</sup>. The lake is rather shallow and has been susceptible to the increasing variability and irregularity of rainfall during the last 40 years. It has fluctuated greatly during this period, shrinking by up to 80% in 1985, but reaching 19,000km<sup>2</sup> once more in 2001. The River Chari provides 90% of the inflow to the lake, while the remaining 10% comes from the Komadougou-Yobe River system.

The Lake Chad Basin covers parts of Algeria, Cameroon, Central African Republic, Chad, Libya, Niger, Nigeria and Sudan, and supports more than 20 million people. The local economy on the upper part of the catchment is based on fishing, agriculture and pastoralism.

The lake is also home to many important and interesting bird species which contribute to its inclusion on the Ramsar List of Wetlands of International Importance. But in addition to high climatic irregularity and occasionally extreme droughts in the region, unsustainable management of natural resources, population increases and desertification are amongst the biggest challenges facing the basin's human population.

Most people living around the lake lack access to safe drinking water and proper sanitation. Other threats include the spread of invasive grass species that form a dense mat across half of the lake and impede transport, as well as dyke building and unsuitable irrigation systems which have resulted in accumulated salt in the soil.

## Actions taken

The World Wildlife Fund (WWF) is working to promote management planning at the Lake

Chad basin scale with several regional and global partners: the Lake Chad Basin Commission (LCBC) and its five member states, the Ramsar Convention secretariat (Ramsar Bureau), the Global Environment Facility (GEF, through the World Bank and UNDP), and NGOs including the Nigerian Conservation Foundation and IUCN-The World Conservation Union.

In this context, large-scale designations of new Ramsar Sites have been initiated since 1999. This has been achieved with support from WWF in all five Lake Chad Basin Commission (LCBC) member states, as well as in two of the three countries which, although they share the Lake Chad hydrological basin, are not yet members of the Commission, namely Algeria and Sudan.

Improving the management and sustainable use of Lake Chad and its basin is the goal of a GEF project entitled 'Reversal of Land and Water Degradation Trends in the Lake Chad Basin Ecosystem'. GEF program and LCBC have been jointly leading the development of this project. WWF's role has been primarily that of a catalyst, bringing together governments, NGOs, and the Ramsar Bureau. This was partly enabled by provision of 'seed money' to support Ramsar Site designations.

## **Outcomes**

This case illustrates how increased understanding among neighbouring countries can improve long-term access to water, food, and other natural resources. Furthermore, laying the groundwork for the role of the LCBC as a local management body to govern shared resources, promote dialogue among countries and avoid unnecessary conflict is an example that could be used in other situations.

Because it defines the Conventional Basin, the LCBC is the most relevant international organization in regard to the sustainable use of Lake Chad. Until recently, evidence of the Commission's presence has been virtually nonexistent in the Conventional Basin, apart from some scattered infrastructure. Member States must vest the Commission with more power to enable it resolve water and land disputes and conflicts. A basic weakness in all river basin organizations and regional economic communities in Africa is a lack of strong evidence of supernationality. In fact, a key factor of the success achieved by similar organizations in developed countries is the preparedness of their members to be bound by decisions made by the regional institutions (ECA 2001). It is not just a matter of getting a protocol or convention ratified that makes such an agreement work, but particularly the degree to which it is binding on Member States. Such a step depends on the political will and commitment of the members to the regional organization and its goals. The compelling evidence of the degradation of Lake Chad and its drainage basin, and the urgency of the need for restoration of the lake, has stimulated LCBC member countries to muster some political will to cooperate with the Commission. Moreover, within their limited resources, there is evidence of improved commitment by Member States to their financial obligations.

## **Lessons Learned**

Independent organizations, such as WWF, can play a unique role as a catalyst, facilitator, technical adviser and 'honest broker'.

Relatively small financial investments can generate significant conservation results.

Transboundary protected area designations can help to 'unlock' international financial cooperation.

Intergovernmental treaties, such as the Ramsar Convention, and river basin organizations, such as the LCBC, can provide the basic institutional framework required for effective transboundary cooperation. However, the mere existence of agreements and institutions is not sufficient for securing success.

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**Supporting Materials**

GWP Central Africa

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**Related IWRM Tools**

Transboundary Organisations, Environmental Impact Assessment, Nexus Framework, Impact Investment Market Maps