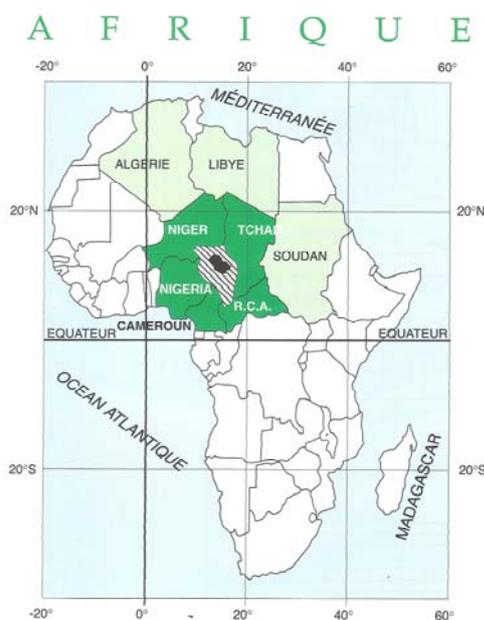




INTEGRATED RIVER BASIN MANAGEMENT

Challenges of the Lake Chad Basin,

Vision 2025



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Vision 2025

- The Lake Chad Region would like to see by the year 2025 the Lake Chad – common heritage – and other wetlands maintained at sustainable levels to ensure the economic security of the freshwater ecosystem resources, sustained biodiversity and aquatic resources of the basin, the use of which should be equitable to serve the needs of the population of the basin thereby reducing the poverty level.
- A Lake Chad Region where the regional and national authorities accept responsibilities for freshwater, ecosystem and biodiversity conservation and judicious integrated river basin management to achieve sustainable development.
- A Lake Chad Region where every Member States has equitable access to safe and adequate water resources to meet its needs and rights and maintain its freshwater, ecosystem and biodiversity resources.

Background

Lake Chad and its active basin constitute an important freshwater resource shared by Cameroon, Niger, Nigeria, Chad and the Central African Republic. Lake Chad is Africa's fourth largest lake (in terms of surface area) after Victoria, Tanganyika and Nyassa. It is however shallow, with average depth of 1.5m and is of relatively small volume.

The lake is subject to considerable evaporation and yet is not saline. For thousands of years Lake Chad has been a centre of development, trading and cultural exchange between the people's living to the north of the Sahara and those to the South. About twenty two million people depend for their livelihood on activities carried out in the Lake Chad and its active basin.

In 1964, four countries bordering the lake created the Lake Chad Basin Commission (LCBC), to handle the water resources management in an area referred to as "the conventional basin" which covered approximately 437,300 km². Since 1994, the Central African Republic has been a member of the LCBC and "the new conventional basin" has been enlarged to include the upper basins of the Chari-Logone and Komadugu-Yobe covering an area of about 967,000 km².

Major Problems of the Lake Chad Basin

a) Rainfall Pattern

The rainfall pattern in the Basin is of the Sahelian climatology thus making it highly variable and unpredictable. For instance, in a period of two decades, isoyetal contours of mean rainfall have shifted to the south by about 180 km. As a result of this shift areas that have experienced a mean rainfall of 320 mm now receive 210 mm.

b) Water Balance

The overall water balance in the basin is affected by the close interaction between rainfall, evaporation, the generation of lateral inflow to the lake and the ground water leakage under the body of the lake.

c) Soil Types

The properties of the soils in the basin vary considerably throughout the region and this affects the vegetation in the basin.

d) Drought and Desertification

Rainfall deficits first noticed in 1972 have continued unabated till now, although there are occasional overflows of short duration. The cumulative effect of these droughts has led to the systematic shrinkage of the lake.

e) Environmental Degradation

The natural causes highlighted above together with man-made causes such as upstream dam construction, land degradation, soil erosion, deforestation and bush burning have created serious environmental degradation problems.

f) Population

Population growth is another major problem in the Basin. By the year 2025 the population of the Basin is projected to be over 36 million from the current figure of 22 million. Population explosion and migration in pursuit of means of livelihood by the pastoralists, fishermen and environmental refugees as a result of Desertification lead to competitions for scarce water resources in the basin resulting into conflicts.

g) Poverty Level

The cumulative effect of all the problems listed above is poverty. The five countries of the Basin are classified amongst the poorest in the world.

Situation Analysis

The text below presents a brief analysis of the situation at Lake Chad Basin:

1. Climatic changes in the Sahel over the past 30 years

- Considerable fall in water level in Lake Chad and the associated aquifers, resulting in a decline in perennial vegetation and an increase in vulnerability to erosion (particularly wind erosion).
- Migration of people and their livestock owing to climatic changes: increased pressure on resources upstream (further south).
- Desertification.
- Abandonment of traditional resource management practices.
- Less flooding, and decline in reception capacity of natural habitats, especially those connected with water.

2. Poor decision-making; adapted development policies focused on the short term solution. Unsustainable development decisions

- People have only precarious means of subsistence
- Costly investment abandoned due to lack of access to water
- Construction of large dams upstream without taking sufficient account of requirements of people and ecosystems downstream.
- Mining operations with insufficient co-ordination with regional water and environment policies.

3. Lack of water and environmental management policies – bad practices

- Lack of Integrated management of water resources at the national and regional and regional basin levels
- Insufficient knowledge of water resources and the functioning of aquatic ecosystem
- No effective system for monitoring system for monitoring the quantity and quality of water. Similarly no effective facilities for early warning and preservation measures.
- No management of water demand or adaptation of production methods to conserve natural resources.
- No preparation for handling emergencies (pollution).

4. Weak co-ordination through low level of stakeholders participation and unsuitable institutions

- Insufficient co-operation between sectors in the countries and between the countries, for integrated water resources management
- People's opinions and requirements not sufficiently taken into account
- Non-existent of environment education
- The legal framework and the means of applying the laws are not updated and harmonized on a regional basis to protect water and ecosystem (common resources)
- National and regional institutions do not adapt sufficiently quickly to keep pace with changes
- Donors provide little incentive for a co-ordinated and sustained policy of long-term assistance aimed at sustainable development

5. Weak economic situation of the States and persistent of rural economy

- The economic situation of most of the States in the basin does not permit the introduction of costly monitoring system of the environment without outside help
- Population growth increases pressure on water, ecosystem and continued decline in bio- diversity in the regions

Challenges to Integrated Management of the Chad Basin

The challenges to Integrated Management of the LCBC can be summarized below:

Conservation

Conservation, a major challenge to integrated management of the Basin is needed to conserve the limited available water resources. A proper conservation programme will involve re-vegetation so as to improve soil texture thereby reducing evaporation and trans-evaporation as well as creation of protected areas such as parks, Moreover; measures have to be taken to protect the rivers, aquifers, aquatic ecosystem and the lake itself against the risk of cross border pollution.

Restoration

The restoration of the lake level and its ecosystem is another challenge to the Commission. Such a restoration will lead to the restoration of Lake Chad wetland, which is the second largest wetland in Africa.

Desertification

Here the target is to halt desert encroachment and this will involve sand dune fixation and re-vegetation programmes being tackled simultaneously.

Data collection

Data collection, collation, storage and dissemination through appropriate media are essential to effective management of the basin.

Regional Co-operation

It is absolutely important that all the countries that form LCBC co-operate in every detail including the updating of regional agreements and their harmonization to ensure effective and sustained management of the water resources of the basin.

Lake Chad Basin Vision 2025

The choice

A Sustainable Lake Chad Region, with a positive vision marked by policies of integrated sustainable management of the basin. This process of integration starts from local, national to the regional level. It should also be fully participatory and characterized by:

- i) Integrated river basin management
- ii) Rigorous application of conservation strategies
- iii) Sustained data collection, analysis and management
- iv) Promotion of regional cooperation
- v) Restoration and management of the Lake Chad and its ecosystems at sustainable Levels.

Vision 2025

- The Lake Chad Region would like to see by the year 2025 the Lake Chad – common heritage – and other wetlands maintained at sustainable levels to ensure the economic security of the freshwater ecosystem resources, sustained biodiversity and aquatic resources of the basin, the use of which should be equitable to serve the needs of the population of the basin thereby reducing the poverty level.

- A Lake Chad Region where the regional and national authorities accept responsibilities for freshwater, ecosystem and biodiversity conservation and judicious integrated river basin management to achieve sustainable development.
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Vision Elements (how to get to where we want to be)

- (1) Strengthening of sub-regional co-operation. Address issues related to transboundary and shared natural resources including continuing drought, desertification, persistent poverty, food insecurity and serious degradation of water, soil and forest resources; Harmonize macro-economic policies and eliminated externalities with competitions. Synchronize national programmes with efforts at sub-regional and regional levels. Strengthen existing partnerships and networking and promote continuous dialogue; Provide consultation for a.
- (2) Development of practical national and sub-basin strategies and programmes based on shared and transboundary natural resources such as the Hedejia-Jama'are/Komadugu-Yobe sub-basin, Chari/Logone-El-Beïd sub-basin, Lake Chad sub-basin, wildlife and animal resources, common forest and pasture lands, etc that can be implemented in a reasonable time frame by Member States and the LCBC.
 - a) Establish thematic groups for consultations and for formulation of joint programmes of actions and projects recognizing the NGO's in (i) raising awareness at local, national and international levels and providing linkages between them; (ii) promoting community participation and application of indigenous knowledge; and (iii) fostering synergies among organizations

- b) Greater national and sub-regional efforts at conflict prevention and resolutions
- c) Encouragement of strong public and private sector participation
- d) Better recognition of the close linkages between economic growth and trade, investment, employment generation, poverty reduction and the use and management of land and water resources at the national level.
- e) Strengthen role of LCBC in collection and dissemination of data and information on projects, available natural resources, good practices, models and to guide the region on needed development needs strategies financing, and programme promotion
- f) Use of economic instruments, such as pricing, for water, including the “polluter pays principle” to ensure water quality standards
- g) Concerted efforts should be made at the national level on providing the basic needs of life (particularly water) as a priority for all.

Framework for Action

Mobilization of political will and ensuring good governance is fundamental to the realization of the objectives of the vision. It is necessary to have a broad based support and commitment of all the basin’s stakeholders, donors and technical support agencies so that sacrifices and investments can be made to achieve the desired visions goals. This calls for dissemination of information particularly on the vision itself.

For good Governance the national and regional institutions involved in water resources management have to be strengthened. The Lake Chad Basin Commission should have to be supported and strengthened. Fortunately the basin has already been made a unit for planning and management. That should also be applied in the national basins for proper co-ordination and harmonization. Regional cooperation is another major issue for good governance.

ACTION PLAN

The short term plan of 8 years

This phase is first to overcome barriers to the concerted management of the basin through enhanced collaboration and capacity building among riparian countries and the stakeholders. Secondly to complete transboundary diagnostic analysis and prepare a framework for the integrated water management across the basin. Thirdly to prepare a long-term implementation of priority actions to address transboundary issues. The implementation modalities will be tested under this phase through pilot projects, stakeholder involvement, and demonstration of the capacity of riparian countries to implement.

This phase will lay the basis for the second phase and the long-term 20-year programmes.

Long Term Plan of 20 years

Given the long term perspective above and taking into account the different approaches and conditionalities and indeed the necessity to involve the external support agencies the basin was divided into sub-basins with programmes captioned A,B,C,D. this will not only provide for participation in planning and implementation of the programmes but will also facilitate flexibility for bilateral donor's support. The sub-basin programmes are as follows:

- A. The sustainable regional development programme for Lake Chad and its basin (involving the five countries)
- B. The programme for the Komadugu-Yobe sub-basin (involving Nigeria and Niger, with consequences on the lake).
- C. The programme for the Chari-Logone-El Beïd sub-basin (involving the Central African Republic, Cameroon, Chad and Nigeria, with consequences on the lake)

- D. The national projects programme, with projects of national nature but of regional importance to the basin.

Programme A is a comprehensive regional one that will soon start to set up, in particular, the consultation mechanisms and facilitate negotiations with other donors for co-funding of programmes B, C and D. Programme A will handle questions relating to Lake Chad itself.

Priority Action

1. Initiate shared management of water resource, with mechanisms for cooperation and integration both within and between the countries, at the various levels (national, sub-basin and basin).
2. Set up viable network for collecting basic information in order to identify and monitor water resources, ecosystems and the ways in which they are exploited more accurately.
3. Carry out basic sectoral measures to control water demand in order to combat desertification and the loss of biodiversity.
4. Ensure the prevention and control of contaminants and preserve fisheries resources.
5. Improve methods of exploiting aquatic ecosystems and protect flood plains in relation with regional development.
6. Begin prefeasibility studies (physical, technical and economic) and environmental impact studies relating to intra and inter-basin water transfers for the restoration and ecosystem conservation.

Support invited

The Lake Chad Basin Commission would invite the international development agencies and donors to assist and participate in the development efforts planned for the region. The environmental problems of the basin resulting from droughts and desertification and subsequent shrinkage of the lake and its ecosystems and biodiversity reduction call for urgent international attention and support. Both technical and financial support from the international community would be needed to tackle these problems and realize the Vision objectives.



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