

CONCEPT NOTE

Environment and Climate Change

Faced with the challenges posed by global environmental changes, turning Chad into an emerging economy by 2030 will require addressing the main environmental issues. The aim is to promote and finance adaptation and mitigation measures in line with the principles of sustainable development. Chad is thus reaffirming its determination to strengthen the climate resilience of populations and ecosystems and to contribute to the global effort to reduce greenhouse gas emissions. To this end, coherent policies and programmes will be implemented to ensure a diversified economy with sustainable resource

Land degradation in Chad



development and an energy transition.

Background

The environmental challenges in Chad are mainly linked to the degradation of the productive potential of natural resources and natural habitats and to the loss of biodiversity. There are also other challenges (siltation of oases, development of invasive species and various pollutions) linked to climate variability and climate change, anthropogenic pressure on resources, etc.

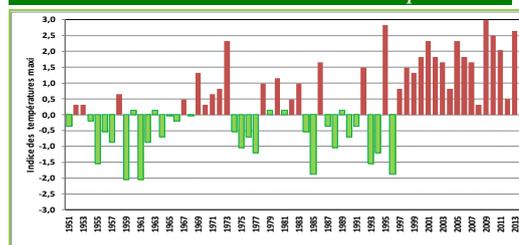
The main challenges and issues facing Chad as far as the climate is concerned can be summarised as follows: (i) decreased inter-annual and intra-annual variability in rainfall and water resources; and (ii) an increase in the extreme weather events that often affect the country (droughts, floods, heat waves, strong winds) that will become increasingly intense and frequent this century (IPCC, 2014). The current climate changes mean that Chad is considered by the international scientific community as one of the “hotspots” or “highlights” of climate change in the world (CSAO, 2010). This vulnerability to climate change is exacerbated by a number of issues the country faces (poverty, weak institutional capacity, human pressure on natural resources, internal and external conflicts).

Strengths

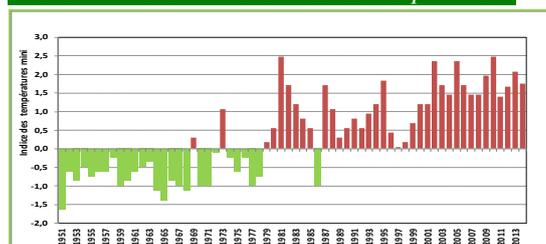
Chad's environmental protection and climate change efforts include:

- An institutional and regulatory framework to support and organise environmental management through a wide range of Laws, Decrees, Orders and several signed and ratified Agreements, Protocols and Conventions (regional and international). The country is committed to the implementation of all the Agreements, Protocols and Environmental Conventions it has ratified, including international environmental conventions under the United Nations Framework Convention on Climate Change, Biological Diversity and Combating Desertification;
- Establishment of a Special Environment Fund (SEF) to promote, preserve and restore the degraded environment and manage natural resources;
- Strengthening the regulatory framework for combating climate change (ESF accreditation process of the Adaptation Fund, approval in October 2016 of the Green Climate Fund Readiness Programme, etc.).

Continuous increase in minimum temperatures



Continuous increase in maximum temperatures



Opportunities

- Mobilisation of the international community for the environment through the opportunities and benefits offered by the Agreements, Protocols and Conventions (access to funding and technology transfers, eligibility for subsidiary bodies of the convention, World Environment Fund, Green Climate Fund, Adaptation Fund, etc.);
- Creation of programmatic documents for the protection of the environment and the fight against climate change (PAN/LCD, NAPA, CPDN);
- Preparation of policy documents and strategies (National Development Plan (NDP) 2017-2021, National Policy on the Environment, National Strategy for Combating Climate Change) in this area;
- Climate change capacity-building programmes (Multi-year Training Plan for the Global Climate Change Alliance: GCCA-Chad);
- Funding and implementation of priority measures for the National Adaptation Programme of Action on Climate Change (NAPA) through projects such as the Chad Agricultural Systems Resilience Improvement Project (PARSAT) and the Global Climate Change Alliance (GCCA);
- Capitalising and scaling up of numerous positive developments in the sub-region and in Chad in the areas of sustainable land management and climate variability and climate change adaptation, climate change mitigation technologies, especially in the renewable energies sector (international conventions and agreements provide opportunities for new technology transfers).

Forestry and Agroforestry



Weaknesses

In general, the reasons the country still has difficulty in establishing its environmental vision and fully assuming its responsibilities in this area can be summarised as follows:

- The low capacity of the main State institutions (HCNE and Ministry in charge of the Environment) to implement the Government's environmental policy;
- Lack of coordination and synergy in the implementation of environmental actions;
- Institutional instability;
- Lack of enforcement of most legislation;
- Lack of awareness of existing legislation and international conventions;
- The enforcement of some legislation solely benefiting administrative authorities, state agents, military agents;
- The lack of a capacity-building programme to create conditions conducive towards the improved enforcement of legal and regulatory provisions;
- Ineffective monitoring and assessment arrangements and mechanisms.

Threats

Threats to the environment include:

- Climate variability and changes that negatively impact agro-sylvo-pastoral and fisheries production systems;
- The resurgence of extreme weather events (droughts, floods, high winds) leading to the destruction of vegetation cover and the drying up of watercourses and water sources and potentially leading to cases of malnutrition, disease, conflict and migration;
- Desertification, which has caused the profound deterioration of natural resources, jeopardising production conditions and endangering lives;
- Increased tensions related to access to natural resources amidst increasing demographic pressure

Measures already taken by the Government with its Partners

At the national level, initiatives to support the adaptation have just started under the NAPA adopted in 2009, including financing from the European Union (CFAF 5.26 billion or EUR 8 million through the GCCA). These priority projects are:

Breeding and gradual adoption of earlier, drought-resistant and disease-tolerant varieties



- Development of intensive and diversified crops that are adapted to extreme climate risks;
- Soil restoration and defence against degradation caused by climate change;
- Improvement of inter-community grassland areas, in order to reduce migratory movements due to climate change;
- Education, information and communication on climate change

Moreover, adaptation will be supported by the 11th European Development Fund for the period 2014-2020. This includes a budget of EUR 297 million for food security, nutrition and rural development and EUR 53 million for “sustainable management of natural resources”. Adaptation is supported by PARSAT. The EUR 36.2 million project on co-financing from the International Fund for Agricultural Development (IFAD), Green Energy Fund (GEF), Adaptation for Smallholder Agriculture Programme (ASAP) and the Government of Chad was implemented in early 2015 for a period of seven years. Finally, Chad has been equipped with a national climate services framework since September 2016, the objective of which is to provide climate-friendly products and services adapted to the needs of users for dealing with the challenges posed by climate variability and change.

At the regional level, the following should be noted:

- The Lake Chad Basin Sustainable Development Programme (PRODEBALT with AfDB funding);
- Programme to **Build Resilience to Food & Nutrition Insecurity in the Sahel** (P2RS, based on African Development Funds amounting to 15 million USD);
- The Project in Support of the Lake Chad Basin initiative to reduce vulnerability and the risks associated with STIs/HIV/AIDS (PAIBLT, ADB);
- The regional “Adaptation to climate change in the Lake Chad Basin” project (German Ministry for Economic Development and Cooperation/Federal Enterprise for International Cooperation cooperation) covering the period 2013-2018;
- The Lake Chad preservation project: contribution to the Lake development strategy (GEF-ADF);
- Pan-African Great Green Wall agency;
- The Programme for integrated management of cross-border basins in Africa – example: Lake Chad (EU);
- The regional programme to reinforce the resilience of countries in the Sahel (USD 26 million, Inter-American Development Bank (IDB)).

In terms of mitigation, the main measures are the following:

- Great Green Wall project;
- National programme for the development of green belts surrounding large urban cities
- The Renewable Energy Master Plan

Strategic Guidelines of the NDP 2017-2021

Axis	Sub-axis	Main outputs expected
<u>Axis 4</u> Improving the quality of life of the Chadian population	<u>Sub-axis 4.1</u> Preservation of the clean environment with natural resources	4.1.3 Effective management of the environment and natural resources
		4.1.3.1 Sustainable management of natural resources and climate change adaptation
		4.1.3.2 A policy for combating climate change and preserving biodiversity
		4.1.3.3 A mechanism for risk and natural disaster prevention and management
		Creating, restoring and preserving wetland systems and protected areas
		Preservation of Lake Chad
		Facilitation of public access to mixed (new and renewable) energy sources

Like other countries, Chad is committed to achieving the Sustainable Development Goals (SDGs) related to the adaptation to climate change and the preservation of biodiversity. In the National Development Plan (NDP) 2017-2021, specifically with regard to Axis 4 (“Improving the quality of life of the Chadian population”), the preservation of natural resources is one of the priorities in terms of environmental challenges.

FINANCING

The total estimated cost of funding for measures related to the environment, climate change and renewable energy is estimated at CFAF 214,754,173,000 over the period 2017-2021.

Expected outputs	Cost (CFAF)
Guaranteed sustainable management and adaptation to climate change	164, 000, 000, 000
The implementation of a policy to combat climate change and to preserve biodiversity	16, 691, 933, 000
Guaranteed mechanism for the prevention and management of natural hazards and disasters	1, 100, 240, 000
Creating, restoring and preserving wetland ecosystems and protected areas	14, 050, 000, 000
Preservation of Lake Chad	14, 912, 000, 000
Facilitation of public access to mixed (new and renewable) energy sources	4, 000, 000, 000
Total cost	214, 754, 173, 000

Water and Soil Conservation Techniques



Promotion of solar ovens



Deployment of renewable energy in Chad

Climate Change in Chad

Over the past decades, the Sahara and Sahel climatic zones of Chad have moved 150 km south. This has resulted in a reduction in agricultural and pastoral areas, causing herders and farmers to move to areas that are more suitable for their activities, generally increasing inequality and discrimination among populations. Similarly, Lake Chad covered 25,000 km² in 1960 compared with 2,500 km² today. This



decrease in cover dramatically reduces agricultural and fisheries production and forces residents to move to more humid land.