

## AFRICA

## Mauritania • Nouakchott

**Context**

Nouakchott is the capital of Mauritania, located on the Atlantic coast and in the sub-Saharan region covering 204 km<sup>2</sup> with 958,399 inhabitants (27.1% of the country's population). The climate is hot and dry all year round with light and very irregular rainfall during the summer and dry winds causing silting up. The city's coastline is surrounded by a dune barrier. The main economic activities are agriculture, livestock farming and fishing.

**Stakeholders**

The AREDDUN project (Support for Environmental Resilience and Sustainable Development in Nouakchott), funded by the European Union, was implemented by the Nouakchott Region. It is based on several expert studies with the objective of developing a Sustainable Energy Access / Climate Action Plan. The participatory approach used aims to inspire the preparation of Mauritania's country programme for the Green Climate Fund (GCF) and Mauritania's National Adaptation Plan (NAP) under the Paris Agreement. Nouakchott's strategic vision for adapting to climate change is also part of the National Strategy for Accelerated Growth and Shared Prosperity (SCAPP) for 2030, which focuses on major transformations in the Mauritanian economy.

**Methodology**

Several expert studies (vulnerability diagnosis, energy audit of public institutions, carbon footprint) have been carried out since 2018 by design offices in the 9 municipalities of the Nouakchott Region. In order to feed into the vulnerability diagnosis, a consultation process designed and led by a consulting firm was also implemented by the Region. Three groups of actors were targeted: government departments, elected officials and civil society. The process included a first consultation workshop to develop a common vision on resilience and adaptation to climate change in Nouakchott. In a second step, the groups meet to analyse the results and contribute to the development of the action plan.



## VULNERABILITIES

**ANTHROPOGENIC PRESSURES:** large-scale rural exodus and population boom (+755,481 people between 2000 and 2013); uncontrolled urban development; anthropogenic fragility (illegal sand exploitation, 4x4 passage, overgrazing) and climate (reduced rainfall, disappearance of vegetation) of the dune cordon.

**VULNERABLE SECTORS:** water and sanitation, agriculture, livestock and fisheries; coastal, spatial and urban planning and public networks and services (transport, energy, waste)

**MARINE INTRUSIONS, COASTAL EROSION AND FLOODING:** acceleration of dune erosion by increasing extreme storms and marine incursions; reinforcement of shoreline retreat by increasing sea level; possibility of major flooding (1/3 of the urban perimeter would be located in a floodplain); formation of permanent pools (sub-surface groundwater)

**SILTING:** increase in exposure to silting (wind movement of dune cordons); exacerbation of silting already aggravated by dry winds; probable increase in droughts, heat waves and decrease in rainfall;

**URBAN HEAT ISLAND:** exacerbation of heat islands.

## ADAPTATION ACTIONS

### FOUR STRATEGIC DIRECTIONS HAVE BEEN DEFINED:

- Improvement of the city's resilience against maritime intrusions and floods;
- Conservation and management of natural resources and the environment;
- Promotion of a diversified economy and the establishment of socio-economic shock absorbers;
- Governance and capacity building.

## MEASURES

Two types of measures have been established: structural measures of strategic scope and whose implementation requires the involvement of the Mauritanian State and measures that fall within the competence of the Region and can be implemented for the short and medium term. More specifically, priority activities involve:

- Developing the Coastal Planning Directive (Region)
- Securing and restoring the dune cordon (Region)
- The development and tourist enhancement of the coastal façade (Region)
- Support for the relocation of Nouakchott's populations at risk (Region)
- The major programme for the water/sanitation/urban agriculture sector with:

- A pilot project of a "sponge district" against floods (Region, municipalities and Ministry of Hydraulics)
- Vegetation project: Nourishing and making Nouakchott green (Region, municipalities, local associations)
- Local sanitation throughout the city (Region and municipalities)
- The Integrated Solid Waste Management Plan (ISWMP) (Region)
- Updating climate change adaptation planning documents (Region)

## STRENGTHS OF THE APPROACH

- Participation of stakeholders in the workshops of the consultation process and complementary results
- Awareness of the groups of actors involved in the city's vulnerabilities
- Overall intersectoral and complementary approach with those of the levels of governance (State, Region)

## LIMITS OF THE APPROACH

- Dependence on external resources (financial, material) for the implementation of actions
- Significant socio-economic and demographic issues not sufficiently integrated into the process
- Strong differences in the results of the participatory approach between administrators and citizens.

## SOURCES

- Acterra (2019). La région de Nouakchott face au changement climatique – étude de la vulnérabilité et Plan d'adaptation – projet AREDDUN
- En Haut ! (2018). Construire une vision partagée de la vulnérabilité et de l'adaptation aux changements climatiques – Démarche participative autour des enjeux du changement climatique – projet AREDDUN
- Picture: Areddun Project "Rapport et analyse des résultats des ateliers des 24 & 25 avril et des 19 & 20 septembre 2018."