Ministério do Ambiente, Ação Climática e Energia

LUXEMBOURG AID & DEVELOPMENT

Instituto Nacional de Gestão do Território

AÇÃO CLIMÁTICA AGORA

cliMAPASCV

Climate Risk and Vulnerability Mapping

Action Type: Climate knowledge, adaptation and support for territorial planning

Coverage: 22 municipalities in Cabo Verde

Scientific and Technical Partner: Universidade de La Laguna

Responsible Entity: National Institute for Territorial Management, INGT

Investment: 150 000 €

Support: Climate Action and Luxembourg Cooperation Programme

Context

Cabo Verde is particularly vulnerable to the impacts of climate change. Reliable territorial information is essential to anticipate risks and support planning, prevention and investment decisions.

cliMAPASCV creates a national knowledge base combining climate hazards, physical and social vulnerability, exposure and adaptive capacity. It helps identify where climate impacts may be most significant and which territories requires greater attention.

Overall Objective

Provide a national climate mapping tool with detailed, high-resolution information to identify and locate climate risks and vulnerabilities, understand who and what is exposed, and support better-informed decisions that strengthen the resilience of territories, communities, ecosystems and economic activities.

Specific Objectives

- Identify and map the main climate hazards;
- Identify priority risk areas;
- Provide a replicable and updateable methodology;
- Determine the intensity and probability of extreme events.
- Assess territorial exposure and vulnerability;
- Guide public and private investment decisions;
- Support territorial planning and adaptation strategies;

Key Results

- Georeferenced information layers linked to their location, in Geographic Information Systems (GIS), with metadata and a methodology ready for future updates;
- Maps of hazards, vulnerability and climate risks;
- Municipal, zonal and neighbourhood-scale mapping;
- Historical climate indicators;
- Identification of critical areas and priority territories;
- A baseline to track changes in vulnerability and the effectiveness of adaptation measures;
- Projections for 2040-2059 and 2080-2099 under two climate pathways: SSP2-4.5, with intermediate greenhouse gas emissions, and SSP5-8.5, with very high emissions. These scenarios explore possible futures and are not forecasts.

Mapped Risks

Drought
Areas exposed to prolonged periods of precipitation deficit;

Flooding and flash floods
Areas susceptible to water accumulation or rapid runoff;

Landslides
Areas susceptible to landslides and falling material;

Heatwaves
Territories exposed to prolonged periods of high temperatures;

Wildfires
Areas with greater susceptibility to fire occurrence and spread;

Sea-level rise
Territories exposed to severe weather phenomena;

Strong Winds
Areas exposed to episodes of intense wind;

Storms
Territories exposed to severe weather events;

Dry Haze
Territories affected by high concentrations of suspended dust.

Applications

- **National Planning:** Support for territorial planning and integration of climate risks into the National Territorial Planning Directive and other sector planning instruments;
- **Municipal Planning:** Support for Local Climate Action Plans and revisions to Municipal Master Plans;
- **Infrastructure and services:** Support for the location, design, maintenance and contingency planning of transport, water, energy, communications, health and education infrastructure;
- **Investment and Finance:** Assessment of climate risks in investment, financing and insurance decisions;
- **Adaptation and prevention:** Identify priority territories and direct resources to areas where they can deliver the greatest resilience gains.

Expected Impact

Better Planning:
Climate risks integrated into territorial and development decisions;

Greater Prevention:
Early identification of the areas, populations and assets most exposed and vulnerable;

Safer Investment:
Improved assessment of physical climate risks in public and private investment;

Greater Resilience:
Actions and resources prioritised in territories with the greatest adaptation needs;

Monitoring:
A baseline to track changes in vulnerability and the effectiveness of implemented measures;

Validation:
The mapping was subject to participatory validation with national institutions and municipalities. Technical knowledge and local experience were incorporated to strengthen the accuracy and practical relevance of the results.

Beneficiaries

- Government and public administration;
- Municipalities;
- Territorial planning and land-use planning technicians;
- Entities responsible for infrastructure and services;
- Civil Protection and risk management entities;
- Investors, financial institutions and insurers;
- Communities and the general population

Access

The mapping is available as open access through the INGT/Government platform, enabling the public to consult the maps as a knowledge resource and decision-support tool.

Click here to access the maps