

Renewable Energy Potential Maps for Lesotho

THE PROJECT

The project will carry out a mapping of the energy potential of the major renewable sources of the national territory, (solar, wind and hydro), and will provide Lesotho with a cartographic tool essential for the correct planning of investments, thus contributing to the achievement of the Sustainable Development Goals, (SDGs), and of the Paris Agreement.

BACKGROUND

Currently, energy demand in Lesotho exceeds production capacity by about 50%, making the country dependent on imported fuels, mainly from Mozambique and South Africa. However, the country has significant potential in terms of renewable energy which, if properly exploited, could guarantee energy independence.

OBJECTIVE

Increase the use of renewable energy.

PLANNED ACTIVITIES

- Creation of a hydrological map of the country, useful for identifying potential sites for the generation of hydroelectric energy.
- Creation of a wind atlas of the country, useful to help identify sites with the greatest potential for generating wind energy.
- Creation of a map of solar radiation, necessary for the identification of suitable sites for the installation of photovoltaic systems.
- Implementation of a GIS, (Geographic Information System), database for a better management and planning of the use of renewable energies.
- Training of local officials and operators.

SUBJECTS

Promoters:

- Italian Ministry of the Environment, Land and Sea
- Ministry of Energy and Meteorology of the Kingdom of Lesotho

Actuators:

ENEA

DURATION

April 2018 – April 2020

TOTAL COST OF THE INITIATIVE

€ 1,205,000

Lender: MATTM

Other lenders: ---

CONTRIBUTION TO

➡ **NDC Lesotho:** increase energy from renewable sources by 200 MW by 2020, (40 MW from solar energy; 35 MW from wind; 125 MW from from hydroelectricity).

➡ **2030 Agenda:** Goal 7 – Sustainable Energy; Goal 13 - Climate Actions.

OUTPUT

- Reports and maps of Lesotho's wind, solar and hydrological potential. ✓
- GIS database, integrated with data from energy potential maps, available to the Government of Lesotho. ✓
- Officials and local operators trained on the use of GIS tools ✓

PROJECT STATUS SETTO

✓ realized to ✓ in progress