

Renewable energy for agricultural and rural development Tunisia

THE PROJECT

The project will support the diffusion of solar energy-powered systems for irrigation and the production of drinking water, (water treatment through desalination and phyto-remediation processes). Young graduates will also be trained, with the aim of promoting the growth of small and medium-sized enterprises in the renewable energy sector. The activities will involve the regions of Kasserine, Gafsa, Sidi Bouzid, Kairouan, Sousse and Sfax in the central-southern part of the country. A reduction of emissions of 136 ktCO₂ per year is expected, due to the adoption of sustainable irrigation practices, and 856 ktCO₂ per year from water treatment activities.

BACKGROUND

The growing energy deficit and rising energy costs led Tunisia to adopt, in 2014, for the first time in its history, an energy transition plan for low-emission development, ([Stratégie Nationale de Maîtrise de l'Énergie](#), June 2014). In 2010, 24.4% of emissions were attributable to agriculture.

CONTRIBUTION TO

NDC Tunisia: reducing carbon emissions by 40% by 2030, compared to 2010 levels.

Agenda 2030: Goal 6 - Clean water and sanitation; Goal 12 - Responsible consumption and production; Goal 13 - Actions for climate.

National Strategy for Energy Management: reduce energy demand by 34% by 2030 based on the Business as Usual scenario (BaU).

OBJECTIVE

Strengthening the link between sustainable energy, water resources management, agriculture and food security.

PLANNED ACTIONS

- Selection of 30 young graduates on eco-sustainable agriculture practices and 150-hours training sessions.
- Supporting 10 trainees for initiating startups, each of which will install a solar powered irrigation system in the selected regions.
- [Tender and construction of a 500KwC photovoltaic plant near Gabès, \(Ben Ghilouf\), which will cover 20% of the energy demand required by the desalination plant that will be installed on the same site.](#)
- Market analysis on the renewables' application potential to the agricultural sector, and mechanisms identification for the spread of renewables.
- Dissemination and communication.

SUBJECTS

Promoters:

- Ministry of the Environment and Energy Security (MASE)
- Tunisian Ministry of Agriculture, Water Resources and Fisheries (MARHP)

Actuators

:Medrec

TOTAL COST OF THE INITIATIVE

€ 2,195,800

Lender: MASE € 1,973,000

Other lenders: MARHP € 222,800

OUTPUT

- Photovoltaic system with a power of 500 kWc near Gabès, (Ben Ghilouf).

- 30 trained graduates and 10 startups launched.
- 10 solar energy irrigation systems installed in to be selected villages, connected to tanks for the collection of excess water, a plant for desalination and phyto-remediation of water and a remote monitoring system.