

# NAMA Support for the Tunisian Solar Plan

## TERMINAL EVALUATION REPORT

### UNDP/GEF Project

GEF ID No: 5340

UNDP PIMS No: 5182

### Summary of project results

#### Component 1:

The project contributed to capacity building of the ministries and agencies involved in the design and implementation of the TSP NAMA. It also enabled improved response to Paris Agreement requirements in relation to actions for mitigating GHG emissions and improved monitoring of NAMAs in the energy sector. The capacity building component also targeted the Ministry in Charge of Environment as the responsible body for the implementation of Tunisia's Nationally Determined Contribution (NDC), as well as the monitoring, reporting and verification (MRV) of GHG emissions.

The project also supported the elaboration of a comprehensive report entitled "Tunisia: Derisking Renewable Energy Investment 2018"<sup>1</sup> containing an analysis of the evolving national institutional context that confirmed the necessity to continue the strengthening of the institutional and regulatory framework for renewable energy in Tunisia. Support for the implementation of the system dynamics modelling (SDM) enabled comprehensive understanding of the constituent components of the energy sector and their interactions, thus contributing to effective mitigation of undesirable outcomes.

In collaboration with parallel initiatives, the project contributed to the evolution of ANME's information system (Ener-info) into a techno-economic simulation model, capable of simulating GHG emissions in the energy sector based on various scenarios, which helped Tunisia in developing a long-term vision for energy policy and assessing the macro-economic impact of the penetration of renewable electricity into the national energy mix. This foresight work allowed setting ambitious mitigation objectives for 2030 and 2050 horizons, that were used to update the Nationally Determined Contribution according to Tunisia's climate change commitments under the Paris Agreement.

#### Component 2:

The project provided essential assistance for the development of indicators to measure the contribution of the energy sector to the attainment of Tunisia's sustainable development goals

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<sup>1</sup> Tunisia: Derisking Renewable Energy Investment 2018. Selecting Public Instruments to promote Renewable Energy Investment for the Tunisia Solar Plan. UNDP. June, 2018. Available at: <https://newclimate.org/2018/06/26/tunisia-derisking-renewable-energy-investment-2018/>

and objectives, enabling the assessment of public policies related to electricity production and consumption modes.

In Tunisia, the energy sector is the biggest contributor to direct gross GHG emissions, with 27 million tCO<sub>2e</sub> represented 58% of national gross emissions in 2012<sup>2</sup>. Therefore, effective progress towards the achievement of a renewable energy transition and the attainment of GHG mitigation targets depends heavily on the electricity sector. To this end, the project supported initial work towards the establishment of an independent regulatory authority for the electricity sector. Relevance of this move had been identified as the most important action in the accelerated action plan for renewable energies. The importance of such independent regulatory authority for the implementation of the TSP was confirmed by public and private sector stakeholders whom expect an independent regulator to reduce the limits and uncertainties of the electricity market to facilitate the energy transition, but to also promote renewable energy technologies in the fortified market.

The project sponsored a study for restructuring ANME and assisted in launching the initial restructuring phase. Once fully restructured, ANME will be able to fully assume its leading role in the development and implementation of national policies towards a low-carbon economy. The reform is essential not only for accelerating Tunisia's energy transition, but also for accrediting ANME under the Green Climate Fund (GCF).

Although the project did not directly contribute to developing new regulations on renewable energy (RE), it provided the opportunity for convening public and private stakeholders for discussion on new legislative measures aiming at closing the gaps in the regulatory framework specifically related to renewable energies. In particular, the project engaged in background discussions with ANME and the Tunisian Company for Electricity and Gas (STEG), which were essential for identifying the priority needs for strengthening the public grid capacity for absorbing electricity generated from renewable sources. Consequently, the identified needs were integrated in the technical and financial components of the TSP NAMA.

The project also contributed to the development of new financial instruments that paved the way for developing new public private partnership (PPP) modalities for implementing the TSP. Importance of this support is critical considering that access to finance for RE projects is still difficult in Tunisia due to several risks and barriers for such investments among financial institutions that cause increased funding costs for offsetting the elevated investment risks. As such, the project also made some contribution for mitigating the investment risks linked to the RE market among private investors. However, limited focus was given to de-risking national financial institutions, which are expected to either provide the necessary investment capital or to serve as financial intermediaries for channelling credit lines provided by international development banks.

### Component 3:

The planned GHG emission reduction targets from the two baseline projects (a 10 MW public sector solar photovoltaic plant and a 24 MW private sector wind park) could not be achieved. The project engaged in discussions with STEG and the German International Co-operation

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<sup>2</sup> Tunisia's 3<sup>rd</sup> National Communication to UNFCCC, p. 11

Agency (GIZ) that resulted in the preparation of tender documentation for the baseline Tozeur I solar PV plant that was provisionally commissioned in late 2019 but has not been operating at its full nominal power output capacity due to slow progress with commissioning. As a result of the cancellation of the original baseline wind park, the project sponsored wind measurement campaigns at two specific sites with the aim to accelerate the development of wind power capacity in Tunisia.

### **Sustainability and progress to impact**

There are no major risks on the sustainability of the project results due to systematic and long-term support provided by other donors, in particular the German International Co-operation Agency (GIZ).

The immediate impact of the project lies in the broader adoption of climate change mitigation in the energy sector and transformational change, under which Tunisia has successfully upgraded the positioning of NAMAs within the architecture of climate change mitigation for the NDC revision and its future implementation. Limited impact has been attained related to the Tozeur I solar PV park that is still under provisional commissioning. Apart from global environmental benefits, the operation of the solar park has also had a positive financial impact for STEG in terms of payments for the fossil sources of energy replaced by RE.

Collectively with the array of interventions funded by GIZ, the GEF project contributed to sizeable development of RE projects for electricity production in the last 4 years. Under the concession scheme, 500 MW capacity in solar PV and another 500 MW in wind energy were the subject of calls for tenders in 2018 and 2019. This was complemented by 203 MW of solar PV capacity and 120 MW of wind power capacity licensed after three calls for projects in May 2017, May 2018, and July 2019.