



NAMA SUPPORT FOR THE TUNISIAN SOLAR PLAN

NAMA Profile # 7

Seeking support for implementation

October 2015

Due to the combination of socioeconomic growth and subsidy policies, Tunisia has faced an increasing energy demand over the past 20 years. Electricity generation, primarily gas-powered generation, is dominated by fossil fuels. Thus, despite a steady increase in demand at of approximately 4% annually, electricity production has resulted in a deficit due to the stagnation of fossil resources.

Tunisia has significant wind energy and solar potential but at the moment only 3% of the grid-connected generation capacity is attributable to renewable energies, namely two wind farms, which are publicly funded through the Tunisia National Electricity and Gas Utility (STEG). Most of the wind sites with the highest wind speeds are located along the northern coast, while the strongest solar radiation is in the south of the country. In the last few years, Tunisia has struggled to attract private sector investment in wind and solar energy. Thanks to support from several international development actors, such as Gesellschaft für Internationale Zusammenarbeit (GIZ), Agence Française de Développement (AFD) and the International Renewable Energy Association (IRENA), the government of Tunisia has put in place various programmes to support private sector investment. The UN Development Programme's interviews with investors have

indicated considerable interest from both domestic and private sector investors. The UNDP-implemented, GEF-financed project "NAMA Support to the Tunisian Solar Plan" intends to provide direct assistance to two first-of-their-kind renewable energy projects: a 24MW wind farm at Gabes, funded by a domestic private-sector investor; and a 10MW solar PV plant at Tozeur, publicly funded by STEG.

NAMA objectives

The Tunisian Solar Plan (TSP), originally formulated in 2009, was revised in 2012 with financial support from the AFD to achieve a total renewable energy penetration target of 30% of the Tunisian electricity generation mix by 2030. The TSP targets are based on an electricity demand baseline that includes the voluntary adoption of energy efficiency measures over the period 2013-2020, which result in an average reduction in electricity demand of 1.4% per year compared to a business-as-usual scenario of no energy efficiency measures. The TSP, when fully implemented, is expected to yield cumulative emission reductions of the order of 53 MtCO₂ between 2013 and 2030. The TSP is also intended to catalyze green investment that will contribute to economic growth, the creation of green jobs and technology transfer.



Picture source : http://www.unep.org/greeneconomy/portals/88/images/success/solar_energy_tunisia.jpg

NAMA interventions

The UNDP-implemented, GEF-financed project has developed a single and coherent NAMA for the TSP that will be implemented through three different technologies – wind, photovoltaics (PV) and Concentrated Solar Power (CSP), with contributions of 15%, 10% and 5%, respectively. The NAMA TSP will integrate all of them into a single framework, which will enable marketing the NAMA TSP as an integrated package to attract international, bilateral, and public and private sector financial support. The core components of the TSP NAMA will cover: clear long-term targets, a public instrument package to create an enabled investment environment, assessment of costs and incremental costs, assessment of socioeconomic and environmental benefits, and MRV/indicators. Each of these components will be implemented for the three Technology Action Plans (TAPs), which will then be combined into one overall NAMA. The TAPs are necessary to take into account the constraints, barriers to implementation and opportunities specific to each technology.

Prior activities undertaken towards implementation of the NAMA

Under the guidance of UNDP as the implementing agency and with financial support provided by the GEF and several co-financiers (National Agency for Energy Conservation of Tunisia (ANME); Tunisian Ministry of Environment; German Ministry of Environment; GIZ; UNDP; EnerCiel/UPC; KfW) the following steps are being undertaken towards implementing the NAMA:

- Establishing the enabling framework and methodologies to support implementation of the Tunisian Solar Plan.
- Establishing an architecture for NAMA development.
- Designing and implementing renewable energy NAMAs to demonstrate the transformational role of the TSP to reduce emissions.

GEF funds will be used to support the activities (i.e., incremental investment and removing barriers) with a long-term view on catalyzing private investment to implement the TSP.

Sustainable development benefits of the NAMA

The reinforcement of wind energy production and the introduction of solar PV will boost socioeconomic growth in the country. For this reason, besides GHG emission reductions, the NAMA is expected to generate the following sustainable development co-benefits:

- Increasing security and sovereignty of the energy supply at the national level by reducing dependence on imported gas;
- Having high-quality access to energy at competitive prices and reducing the impact on natural resources and the environment;
- Increasing social equality and reducing energy poverty, through increased access to quality and affordable energy services, especially in the (sub-national) regions;
- Expanding electricity grid coverage to capitalize on indigenous renewable energy resources, which will facilitate rural electricity programmes using appropriate and cost-effective technologies;
- Facilitating the creation of conditions for sustainable socioeconomic development in rural, isolated villages and country borders by improving the quality of life of the rural population and encouraging the promotion of productive energy uses;
- Developing a vibrant renewable energy supply chain in Tunisia that will generate green jobs; and
- Promoting the coordination of financing instruments and tools with public and private entities in order to allow better access to economic resources and financing for projects.

NAMA relevance in the national policy context

The proposed NAMA is in line with the national policies and plans outlined below.

- **National Climate Change Strategy (NCCS):** In 2010, Tunisia initiated a large national stakeholder consultation process, which led to the development of its NCCS. The NCCS sees NAMAs as key elements of Tunisia's mitigation policy, particularly in the energy sector.
- **Low Carbon Development Strategy (LCDS):** UNDP is supporting ANME to mobilize resources for developing LCDS for Tunisia. The LCDS will support a sustainable energy transition process in Tunisia through transforming public policies, including the TSP.
- **National Capacity Self-Assessment (NCSA):** Tunisia conducted an NCSA for the Conventions through the UNDP-implemented, GEF-financed project. The NCSA covered, among other things, potential sectoral GHG emission reduction projects and highlights the critical role that renewable energy can play in improving Tunisia's energy security and reducing its emissions.
- **National Communications and Biennial Update Reports (BURs):** Tunisia is launching its Third National Communication to the UNFCCC, and is receiving GEF support to submit its first BUR. National Communications and BURs are effective means of detailing planned and current NAMAs, and enhancing their visibility to attract financial support.

Support required for implementation of the NAMA

In accordance with the NAMA entry submitted to the UNFCCC NAMA Registry, the amount of financial support required for implementing the NAMA is approximately EUR 707.9 million and covers policy de-risking instruments, financial de-risking instruments and premium payments (FiT or negotiated PPA price). The financial support will cover the above-mentioned activities for both actions:

- **Wind energy:** EUR 8.4 million in policy de-risking and EUR 279 million in financial de-risking.
- **Solar PV:** EUR 4.4 million in policy de-risking, EUR 141 million in financial de-risking and EUR 276 million in a price premium.

Technical support costs are included in the costs of the de-risking instruments and premium payments. The technical and institutional support being provided by the "NAMA Support to the TSP" project can also be leveraged to support implementing the de-risking instruments and premium payments. The GEF project is also providing a structured capacity-building support programme.



Salient features of the Proposed NAMA

Sector : Energy supply
Technology : Wind energy and solar energy
Type of action : National/Sectoral goal, national/sectoral policy or programme
GHGs covered by the action : CO₂
Expected timeframe for the preparation : 5 years
Implementing entity : ANME
Total estimated cost of implementation : €707.9 million
Required support for the implementation of the action : €707.9 million
Relevant contacts : Nejib Osman; Phone: +216 71 906 900; email : osman.nejib@anme.nat.tn

References

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- GIZ (2012). Énergie renouvelable et efficacité énergétique en Tunisie: emploi, qualification et effets économiques. Tunis: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- UNDP (2014). Tunisia: De-risking Renewable Energy Investment. New York, NY: United Nations Development Programme.
- UNFCCC (2015). NS-201 – NAMA Support for the Tunisian Solar Plan. NAMA Registry. <https://process.unfccc.int/sites/NAMA/layouts/un/fccc/nama/NamaSeekingSupportForImplementation.aspx?ID=201&viewOnly=1>

The series of NAMA profile is produced by the NAMA and Registry Unit of the non-Annex I Support Sub-Programme of the Mitigation, Data and Analysis Programme (MDA) of the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat based on the information recorded by Parties in the NAMA registry. The objective of NAMA profile is to enhance visibility of NAMA which increases probability for obtaining international support and encourages similar mitigation actions in the developing countries.

The NAMA registry is a dynamic, web-based platform to record nationally appropriate mitigation actions by the developing countries and support available and/or provided by the Parties and entities for such mitigation actions. Further, the registry aims to facilitate the matching of NAMAs with available support. The participation in the registry is voluntary and the registry contains only information that has been submitted specifically for recording purpose. For any queries and assistance in relation to the NAMA registry, please contact: NAMA-registry@unfccc.int and NAMA-support@unfccc.int

To learn more about stories about how developing countries, often with international support, are lowering global emissions, creating jobs, improving living conditions, and preparing for a low-emissions world, please visit :

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