

# Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility  
(Version 5)

## STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: May 09, 2013

Screener: Lev Neretin

Panel member validation by: Ralph E. Sims  
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### I. PIF Information *(Copied from the PIF)*

**FULL SIZE PROJECT**    **GEF TRUST FUND**

**GEF PROJECT ID:** 5340

**PROJECT DURATION :** 5

**COUNTRIES :** Tunisia

**PROJECT TITLE:** NAMA Support for the Tunisian Solar Plan

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:** National Agency for Energy Conservation of Tunisia (Agence Nationale pour la Maîtrise de l'Energie, ANME)

**GEF FOCAL AREA:** Climate Change

### II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies): **Consent**

### III. Further guidance from STAP

STAP welcomes this ambitious and innovative project that has a goal to transform Tunisia's energy sector for achieving large-scale emission reductions through the deployment of NAMAs. The project builds on a strong baseline. The description of barriers is clear. GEF incremental support is to assist the government in analyzing and selecting a package of financial and economic instruments to promote RE technology investment in the context of the Tunisian Solar Plan. STAP commends the project for being partly linked to the Mediterranean Solar Plan and Desertec – two large scale solar programs in the MENA region that have received international attention.

It is important to point out that unless the state subsidies on the fossil fuel energy use are removed, there will be little opportunity for the renewable energy systems to be able to compete with subsidies. Removal of fossil fuel subsidies is a main message coming from the IEA - see <http://www.guardian.co.uk/environment/datablog/2012/jan/18/fossil-fuel-subsidy>. Therefore, STAP welcomes the reform of fossil fuel subsidies being proposed under Component 1 with the GEF supporting this aspect.

The Desertec project is currently facing some difficulties with key partners leaving. The Tunisian Solar Plan aim is to produce 30% of electricity generation mix from renewables by 2030 but it also aims to export 20% of this. Is the TSP relying on the Desertec project for the means to build the transmission lines and undersea cables needed to export the power? If so, given the high costs involved, and uncertainty of when Desertec might proceed or not, it might be worth considering this project to be aimed only at local electricity generation for national use by supporting the wind and solar PV projects as outlined.

STAP wishes to clarify the referenced parameters of the wind speed and capacity factor. The wind project outlined has a 41% capacity factor (24 MW generating 86.4 GWh/yr), which implies very good wind sites with around >9 m/s mean annual wind speed. Is this correct? Or perhaps the 86.4 GWh quoted is for the full 45 MW project, in which case the capacity factor would be 22% with a mean annual wind speed of around 6 m/s which perhaps seems more plausible for this region.

Testing the effectiveness of cooling solar PV arrays is an innovative way of using the GEF funding and is warmly welcomed by STAP.

It is not clear if the wind power projects will have a low climate sensitivity in the longer term as climate change impacts strengthen. Changes in extreme weather events and air density could be minimal compared with possible changes to the

recent seasonal or daily patterns of wind that are possible, but difficult to predict over the life of the wind turbines. STAP suggests considering this risk in the Risks section.

The incentive-based funding system to be created is innovative and supported by STAP.

Analysis of cross-sectoral impacts of NAMAs as envisaged by conducting systems dynamics modeling to assist Tunisia achieve sustainable development is also commendable.

<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	<p>STAP acknowledges that on scientific or technical grounds the concept has merit. However, STAP may state its views on the concept emphasizing any issues where the project could be improved.</p> <p>Follow up: The GEF Agency is invited to approach STAP for advice during the development of the project prior to submission of the final document for CEO endorsement.</p>
<b>2. Minor revision required.</b>	<p>STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.</p> <p>Follow up: One or more options are open to STAP and the GEF Agency:  (i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.  (ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</p>
<b>3. Major revision required</b>	<p>STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design.</p> <p>Follow-up:  (i) The Agency should request that the project undergo a STAP review prior to CEO endorsement, at a point in time when the particular scientific or technical issue is sufficiently developed to be reviewed, or as agreed between the Agency and STAP.  (ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</p>