1. Project Data

Summary project data					
GEF project ID		967			
GEF Agency project ID		2129			
GEF Replenishment P	hase	GEF-3			
Lead GEF Agency (inc	lude all for joint projects)	UNDP			
Project name		Private Sector Led Development	Private Sector Led Development of On-grid Wind Power in Tunisia		
Country/Countries		Tunisia	-		
Region		Africa	Africa		
Focal area		Climate Change			
Operational Program or Strategic Priorities/Objectives		OP-6: Promoting the adoption of renewable energy by removing barriers and reducing implementation costs" SP-4: Power Sector Policy Frameworks Supportive of Renewable Energy and Energy Efficiency			
Executing agencies in	volved	National Agency for Energy Cons	ervation, ANME		
NGOs/CBOs involven	nent	NA			
Private sector involvement		Independent Power Producers (IPP) - beneficiary			
CEO Endorsement (FS	SP) /Approval date (MSP)	August 15 th , 2007	August 15 th , 2007		
Effectiveness date / p	roject start	October 8 th ,, 2009	October 8 th ,, 2009		
Expected date of proj	ect completion (at start)	May 31 st , 2012			
Actual date of project completion		December 31 st , 2014			
Project Financing					
		Project Financing			
		At Endorsement (US \$M)	At Completion (US \$M)		
Project Preparation	GEF funding		At Completion (US \$M)		
Project Preparation Grant		At Endorsement (US \$M)			
	GEF funding	At Endorsement (US \$M) 0.275	0		
Grant	GEF funding	At Endorsement (US \$M) 0.275 0	0		
Grant	GEF funding Co-financing	At Endorsement (US \$M) 0.275 0 2.00	0 0 1.87*		
Grant	GEF funding Co-financing IA own	At Endorsement (US \$M) 0.275 0 2.00 0	0 0 1.87* 0		
Grant GEF Project Grant	GEF funding Co-financing IA own Government	At Endorsement (US \$M) 0.275 0 2.00 0 2.00	0 0 1.87* 0 NA		
Grant GEF Project Grant	GEF funding Co-financing IA own Government Other multi-/bi-laterals	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0	0 0 1.87* 0 NA 0		
Grant GEF Project Grant	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00	0 0 1.87* 0 NA 0		
Grant GEF Project Grant Co-financing	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0	0 0 1.87* 0 NA 0 0		
Grant GEF Project Grant Co-financing Total GEF funding	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0 2.00 64.00	0 0 1.87* 0 NA 0 0 0 0		
Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding (GEF grant(s) + co-financing)	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0 2.00 64.00 64.00 /aluation/review information	0 0 1.87* 0 NA 0 0 0 0 0 1.87* NA		
Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding (GEF grant(s) + co-financing) TE completion date	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0 2.00 62.00 64.00 /aluation/review information May 29 th , 2015	0 0 1.87* 0 NA 0 0 0 0 1.87* NA		
Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding (GEF grant(s) + co-financing) TE completion date Author of TE	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0 2.00 62.00 64.00 /aluation/review information May 29 th , 2015 Dr. Prakash (Sanju) Deenapanray	0 0 1.87* 0 NA 0 0 0 0 1.87* NA		
Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding (GEF grant(s) + co-financing) TE completion date Author of TE TER completion date	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0 2.00 62.00 64.00 /aluation/review information May 29 th , 2015 Dr. Prakash (Sanju) Deenapanray January 22 nd , 2016	0 0 1.87* 0 NA 0 0 0 0 1.87* NA		
Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding (GEF grant(s) + co-financing) TE completion date Author of TE	GEF funding Co-financing IA own Government Other multi- /bi-laterals Private sector NGOs/CSOs Terminal ev	At Endorsement (US \$M) 0.275 0 2.00 0 2.00 0 60.00 0 2.00 62.00 64.00 /aluation/review information May 29 th , 2015 Dr. Prakash (Sanju) Deenapanray	0 0 1.87* 0 NA 0 0 0 0 1.87* NA		

* These figures are reported in the TE and represents expected project financing. When the TE was written, spending figures were only available until the end of December 2014.

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	MS		MS
Sustainability of Outcomes	NR	L		L
M&E Design	NR	MU		MU
M&E Implementation	NR	MS		MU
Quality of Implementation	NR	S		MS
Quality of Execution	NR	S		MS
Quality of the Terminal Evaluation Report				S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The Tunisia Wind Energy Development Project (TWED) project's core environmental objective is to reduce "Tunisia's overall energy-related CO2 emissions in a cost-effective way while helping stabilize energy costs through greater diversification of energy sources." (PD p.14)

3.2 Development Objectives of the project:

More specifically, the project aims to "promote on-grid wind power in Tunisia through the introduction of the necessary regulatory and institutional framework to create favorable conditions for private sector investors in the renewable energy sector. A secondary objective is to assist the government of Tunisia in launching a program of private wind concessions totaling 100 MW" (PD p.1). More generally, the project's aim is to reduce barriers to private wind energy production in Tunisia.

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

There were no changes in project objectives during implementation.

4. GEF EO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 Relevance	Rating: Satisfactory
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The TE rates relevance as satisfactory due to the project's good alignment with Tunisia's energy priorities and with the climate change mitigation priorities of the GEF. For the same reasons, this TER assesses relevance as satisfactory.

Tunisia ratified the UNFCCC in July 1993 and the Kyoto Protocol in June 2002. In 2001, a Presidential decision promoted on-grid wind electricity supply. In 2003, a commission was launched "for the development of wind energy in charge of preparing and supervising the implementation of a regulatory framework conducive to the commercialization of on-grid wind power" (TE p.11). Tunisia's commitment to wind energy is reflected in the 10th and 11th four-year plans, and the government has created the post of Secretary of State in charge of Renewable Energy and Agri-business. Overall, Tunisia has shown a great commitment to the development of wind energy, and has already taken steps in that direction.

The project falls under the GEF Climate Change focal area and is consistent with the operational priority 6, "promoting the adoption of renewable energy by removing barriers and reducing implementation costs". Given that this exactly the aim of the project in Tunisia, it is clear that the project is well aligned with GEF priorities and will contribute to the GEF objective of supporting the implementation of the UNFCCC for the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." (TE p. 37)

4.2 Effectiveness Rating:

The TER rates project effectiveness as moderately satisfactory. The TER rates effectiveness as moderately unsatisfactory due to the failure of the project to deliver several outputs and, more importantly, due to no direct GHG emission reduction having taken place during the lifetime of the project. Below, project achievements against the four main outcomes will be assessed, and project contributions towards meeting project objectives will be discussed.

Outcome 1: Establishing a regulatory and institutional framework that is conducive to on-grid renewables, including a power sector arbitration mechanism

An important achievement under Outcome 1, and probably the most important project achievement overall, has been the contribution of the project towards the design, revision and adoption of the Renewable Energy Law, approved and proclaimed by the National Constituency Assembly in 2014. The Law supports independent renewable power production, but the necessary safeguards and incentives are yet to be defined (TE p.58). Similarly, an arbitration mechanism has not yet been defined; negotiations have started with the STEG (Societé Tunisienne de l'Electricité et du Gaz – the Tunisia public electricity company), but their 'ongoing resistance' slowed things down. Overall, the outcome is partially achieved, with a Law in place, but there remains a need to further define the regulatory

structures surrounding renewable power production. According to the TE, "Outcome 1 has been the most successful component of the project" (TE p.13).

Outcome 2: Strengthening the technical and organizational capabilities of key stakeholders, including the ANME (RE/EE agency), the STEG (Transmission System Operator) and local Tunisian companies

Several outputs were completed satisfactorily, and many were not completed at all. On the positive side, training sessions were designed and carried out. The trainings were on the topic of interconnecting wind farms to the grid, and comprised more than 50% of private stakeholders. The training was carried out very satisfactorily according to the TE (p.59). Second, a study was carried out to assess wind resources at five sites, and feasibility studies were carried out at three sites. Third, an identification of the equipment and services that Tunisian companies could supply to wind farm operators was done. Fourth, activities are underway to disseminate information about business opportunities to Tunisian companies. Finally, technical assistance was provided on the topic of 'the NAMA development potential in the renewable electricity sector in Tunisia', which led to the development of a new ANME-UNDP-GEF project entitled "NAMA Support for the Tunisian Solar Plan".

In terms of undelivered outputs, the planning study on the technical wind absorption capacity of the grid was cancelled as it turned out to be too expensive. Local industry has not been able to supply equipment and services to wind operators as no private wind farms were commissioned during the project lifetime, and the planned electronic forum to bring wind concession applications and Tunisian suppliers together was never created.

Overall, performance on output delivery for this outcome was mixed, and while the capacities of all stakeholders have been increased, they have not been increased as much as expected.

Outcome 3: IPP Group is able to launch private wind concession program.

The first two out of three outputs were not satisfactorily achieved. First, the target of 60MW of wind power installed by the Independent Power Producers (IPP) by project end has not been achieved as no wind power projects have been implemented during the project. Second, models for concessions have been proposed based on a baseline study, but some of the contractual documents required for the models have not been delivered. However, a planned tariff mechanism has been delivered and presented to project stakeholders during training sessions. Overall, few outputs have been produced under this outcome, and the outcome cannot be considered achieved.

Outcome 4: Providing project monitoring and evaluation support.

This outcome was an operational outcome, and will be discussed in the two relevant M&E sections below.

Overall Assessment of Project Objectives

The project had one big success, the approval of the Tunisia Renewable Energy Law. This is a meaningful success, and one that heavily contributes to meeting project objectives. However, two out of the three

core project outcomes have not been achieved and, given the extent of under-performance in output delivery, project effectiveness cannot be rated as more than moderately unsatisfactory.

In addition, the project objective - to reduce GHG emissions in Tunisia- has not been achieved as "no direct GHG emission reduction has taken place during the lifetime of the project" (TE p.13). Even following project end, calculations indicate that over a 15-year post-project duration, the emission of only about 3.8 metric tones of CO2 would have been avoided, which is about half of the value of 7.3 metric tones that was expected (TE p.13). However, as mentioned in the TE, "the calculation of direct project emission reductions in the project document was not carried out according to GEF guidelines" and "it was unrealistic to assume that any reforms to accommodate IPP wind power suppliers and the commissioning of 60MW of wind power plants could take place within the 3-year project duration" (TE p.56).

4.3 Efficiency

The TER rates efficiency as moderately satisfactory. This TER also rates efficiency as moderately satisfactory due to budgeting and HR issues, but noting the overall smooth financial management of the project.

No cost benefit analysis was made for this project, nor does the TE compare the project costs to those of similar activities done elsewhere. However, other aspects of efficiency were discussed.

First, project spending appears to have been kept in check, and about 94% of the planned budget should have been disbursed by project end. Costs were mostly as planned, and the project's financial management appears to have run smoothly. However, the TE challenges some of the budgeting decisions made by the Project Steering Committee (PSC):

"The PSC approved a budget revision that halved the budget of Outcome 3, while bringing a corresponding increase in the budget of Outcome 2. These changes appear to be counter-intuitive to the overall purpose of the project. Actual expenditures show that there has been overspending on Outcome 1 regardless of which proposed target is chosen for comparison. " (TE p.48

In this case, the MTR advised the project to do exactly the opposite – reduce spending on Outcome 2 and increase spending on Outcome 3. The TE notes that a decision was made to do the opposite without justification, and that this appeared to have had a negative impact on project outcomes.

Second, the project appears to have suffered from personnel issues which "adversely affected" (TE p.42) the project. First, the Project Management Unit staff was not always fully dedicated to the project as they were also involved in other activities in the Directorate of Renewable Energies. Second the UNDP program officers changed three times during the project, and had too many projects in their portfolio to dedicate enough time to this project. Last, the ANME Director General, also the Director of this project,

also changed three times over the course of the project. Those personnel and turnover issues created delays and negatively impacted the project. (TE p.42)

4.4 Sustainability	Rating: Likely
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The TE rates sustainability as likely, a rating this TER agrees with. As will be demonstrated below, it appears likely that the activities and impacts of the project will be continued.

Financial Sustainability - Likely

A new ANME-UNDP-GEF project, "NAMA Support for the Tunisian Solar Plan", will take place, and is built on this project's outcomes. It seeks to promote private investments into solar energy and to de-risk investments in Tunisia's renewable sector, including wind and solar electricity generation. The country's continued engagement on renewable energy issues appears to be assured, and financial sustainability is therefore rated as likely.

Socio-Political Sustainability – Moderately Unlikely

The new government elected in 2014 is "widely expected to enhance socio-political stability in the country, albeit with a challenging economic reform that needs to be carried out" (TE p.13). However, following the 2011 revolution, new interest groups emerged, including lobbies at the level of the National Constituent Assembly. Several of these groups do not favor the participation of the private sector in electricity generation. This position is also that of the STEG (Societé Tunisienne de l'Electricité et du Gaz – the Tunisia public electricity company), which has caused tensions and created obstacles to the project. This has slowed down project implementation, and is likely to slow down any future efforts towards facilitating private sector investments in renewable energy generation. Due to the rise of new interest groups, this TER chooses to rate socio-political risks as 'moderately unlikely'.

Institutional Sustainability – Moderately Likely

While the proclamation of the Renewable Energy of 2014 somewhat protects the future of renewable energy in Tunisia, some risks remain. Simply having the law in place isn't enough to catalyze private investment, and no actual private investment in wind energy has taken place as of yet. This is partly due to the high risks that remain for investors in Tunisia related to the financial sector and the general macroeconomic landscape. However, according to the TE, "ANME is undertaking several initiatives that will ensure the sustainability of the project" (TE p.13), including the project mentioned above on the Tunisian Solar Plan, which will address some of the institutional risks for investors mentioned in this section. Overall, institutional sustainability is rated as moderately likely.

Environmental Sustainability - Likely

The TE reports no risks to environmental sustainability. According to the TE, "an awareness of a changing climate in Tunisia (...) is expected to increase the demand for renewable energies, and hence increasing the opportunities for reducing GHG emissions" (TE pp.13-14). Environmental sustainability is therefore rated as likely.

Based on the assessment of four components of sustainability, the activities and impacts of the project beyond its lifetime are assessed to be likely

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The TE does not specify the final amount of co-financing received, but hints to co-financing having exceeded expectations:

"The in-kind contributions were expected to be USD 700,000, while parallel financing was expected to be USD 1,300,000. The in-kind contributions are deemed to be highly satisfactory, with such contributions taking the form of the salary and overheads of the Project Manager, office space, technical support staff, and office furniture and equipment. The parallel co-financing has exceeded expectations through several baseline supported projects" (TE p.48).

Private sector investments in wind energy were expected to be of at least US\$50 million during the life of the project, but no investment was made during the project lifecycle. This has significantly hindered the project objective to reduce GHG emissions and to commission wind power plants of 60MW.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The 2011 Tunisia Revolution significantly slowed down project implementation. The project was granted two no-cost extensions which brought the completion of the project to December 2014.

In addition, the project faced initial implementation delays due to issues of institutional coordination.(TE pp.9-10)

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The TE describes country ownership for this project as having been very high, reporting that "the TWED project was fully owned by the Government of Tunisia" (TE p.38). Indeed, the original idea for

the project came from ANME, and the project was important to the government in order to help reduce the dependence on imported oil. The Project Steering Committee was chaired by the ANME Director General, thereby ensuring a high level of government involvement in project management.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 M&E Design at entry	Rating: Moderately Unsatisfactory
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The TE rates M&E design at entry as moderately unsatisfactory, a rating shared by this TER due to the weak results framework and unrealistic targets set for the project.

The Project Document features a comprehensive M&E plan, including monitoring arrangements, evaluation timeline, project indicators, baseline, responsibility, budget and a plan for learning and knowledge sharing (PD pp. 23-28). Unfortunately, there are important weaknesses in the strategic results framework (PD p.31) that substantially weaken project M&E.

First, and as noted in the TE, "several of the indicators are poorly defined and may not be well connected to the targets that the project sought to achieve" (TE p.54). For example, one indicator is the 'issuance of private wind concessions', but there exists no clear definition for what constitutes a private wind concession. In addition, one of the project objectives is for there to be incentives for wind developers, but none of the indicators or targets relate to those incentives. Finally, several indicators are not clearly linked to outcomes or objectives. For example, some of the targets for Outcome 3 (IPP Group is able to launch private wind concession program) had to do more with the implementation of wind concession programs than with the Independent Power Producers Group's ability to launch wind concession programs.

Second, several of the project targets were unrealistic. According to the TE, "given the situation of power sector monopoly by STEG (Societé Tunisienne de l'Electricité et du Gaz), it was unrealistic to assume that any reforms to accommodate IPP wind power suppliers and the commissioning of 60MW of wind power plants could take place within the 3-year project duration (...) [In addition,] the calculation of direct project emission reductions in the project document was not carried out according to GEF guidelines" (TE p.56). Those unrealistic indicators demonstrated a poor understanding of the project cycle in wind power generation. Overall, the weaknesses of the strategic results framework reduced the usefulness of the M&E framework and its ability to support project development.

The TE rates M&E implementation as moderately satisfactory. This TER instead rates M&E implementation as moderately unsatisfactory due to the number of monitoring commitments that weren't met, and the fact that several MTR recommendations were not implemented.

First, several of the project's planned monitoring activities did not take place. Annual project reports do not appear to have been written every year, and the planned 'lessons learned' study has not been written. While an independent audit was planned for every year, it only appears to have been conducted once. (PD p.61)

Second, several recommendations made in the MTR report do not appear to have been seriously considered by the project staff. For example, "the MTR had recommended the setting up of a Strategic Committee that would provide political guidance to the project, and that would constitute a high-level decision-making panel that would look at solutions to the problem posed by STEG (Societé Tunisienne de l'Electricité et du Gaz) resistance that has already been discussed" (TE p.64). This Strategic Committee was never implemented. The MTR also recommended to include more private sector representatives and representatives of other public institutions on the Project Steering Committee. This recommendation was not implemented either. The MTR also recommended making budget adjustments – those were not implemented either. The examples above show that M&E findings did not directly feed into the project, and that the Project Steering Group was not particularly receptive to feedback generated from M&E tools.

Despite those M&E weaknesses, some aspects of the M&E framework were well implemented. Some of the MTR recommendations were adopted, such as the proposed activity to conduct a "Study and training for NAMA development potential in the renewable electricity sector in Tunisia". Project progress overviews were presented to the Project Steering Committee, and Project Implementation Reviews were submitted to GEF every year. (TE p.64)

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 Quality of Project Implementation

Rating: Moderately Satisfactory

The TE rates project implementation as satisfactory. This TER rates project implementation as moderately satisfactory due to training issues and the over ambitiousness of the results framework.

According to the TE, "all evidence gathered during the evaluation mission indicates that UNDP is fulfilling its oversight and supervision responsibilities – except for the issue related to having PSC meetings at a frequency of three per year (and there is no evidence for any PSC meetings in 2014), UNDP has worked with the project team to ensure comprehensive and timely financial and progress reporting. The UNDP has also provided technical input in the development of several terms of references, and in some cases it has recruited technical experts for developing same. The project supervision has also benefited from the in-country presence of UNDP at the country level." (TE p.12)

The ANME reported the UNDP procurement process to be lengthy and cumbersome, and UNDP should have better trained staff from the Project Management Unit to familiarize them with its rules and regulations. According to the TE, the Project Management Unit staff was also not properly trained on using the results framework and M&E tools (TE p.12).

As mentioned above, the results framework was overly ambitious and the UNDP should have known that over the GHG reduction and wind power investments they were expecting over the short project life cycle were not realistic.

7.2 Quality of Project Execution	Rating: Moderately Satisfactory
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The project was executed by the ANME (National Energy Management Agency) on behalf of the Tunisian Government. The TE rates project execution as satisfactory but does not clearly justify the rating. This TER assesses project execution as moderately satisfactory due to weaknesses in the project's delivery of key project activities and the lack of adoption of important Mid Term Review recommendations.

The TE reports that the Project Management Unit, largely made of ANME staff, failed to development a communications strategy. This resulted in low visibility for the project. Similarly, according to the TE, the PMU did not make good use of the project results framework, and did not implement the M&E framework as planned (TE p.72).

It was noted in the MTR that the expertise of the staff in the Project Management Unit (PMU) "was primarily technical or engineering, (and) the PMU's biased technical profile did not reflect all the legal and regulatory (concessions and regulator), marketing (local value change), financial (models for wind energy projects) or sensitization and awareness" (TE p.33). The MTR advised the PMU to enhance the business skills within the PMU, but this advice was unfortunately not followed.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

At project end, no wind-powered energy had been produced in Tunisia as a result of the project. Consequently, environmental change at project end was nil. However, "the project is recognized by stakeholders to have played a critical role in paving the way for power sector reforms that will accommodate private sector participation in power generation in Tunisia. A most notable contribution of the project has been the proclamation of the Renewable Energy Law in 2014 that makes provision under Section 5 for private sector generation of renewable electricity" (TE P.65). This new Law promised to facilitate the development of renewable energy in Tunisia going forward, and to generate substantial reductions in GHG emissions.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

No socioeconomic change occurred as result of this project.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

Some capacity building was done as part of this project on the topic of interconnecting wind farms to the grid. 50% of those attending the training sessions were from the private sector. In addition to direct training, studies were conducted to improve the knowledge base about wind

power in Tunisia. A study was carried out to assess wind resources at five sites, and feasibility studies were carried out at three sites. Another study was conducted to identify the equipment and services that Tunisian companies could supply to wind farm operators. In addition, steps were taken to disseminate information about business opportunities to Tunisian companies. Finally, technical assistance was provided on the topic of 'the NAMA development potential in the renewable electricity sector in Tunisia', which led to the development of a new ANME-UNDP-GEF project entitled "NAMA Support for the Tunisian Solar Plan". The project also contributed to strengthening the capacity of the ANME (National Energy Management Agency) to support private sector investments in renewable energy.

b) Governance

With support from the project, a Renewable Energy Law was proclaimed in 2014 by the National Constituency Assembly. "The law proposes three ways in which renewable electricity can be produced, and which are supportive of private sector investment in renewable energies in Tunisia:

- Auto-production applicable to any local government institution or public or private enterprise that is active in the industrial or agricultural sectors.
- Independent power generation for sale entirely and exclusively to STEG
- For export the project must be of national interest and will be developed through a concession. "

(TE pp.10-11)

The Law supports independent renewable power production, but the necessary safeguards and incentives are yet to be defined (TE p.58).

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

No unintended impacts were recorded as part of the project.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The project has built the foundation for private investment in renewable energies (TE p.64), but no actual scaling up or adoption at scale has taken place as of yet.

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The following key lessons have been identified in the TER (pp.14-17) and summarized here by the author of the TER.

1. Project design

The target for achieving 60MW of private sector wind power generation was unrealistic or too ambitious. There was an opportunity to review this target at the half-way mark but that was not carried out. The project has shown that caution much be applied in the design of similar projects where similar contexts as in Tunisia prevail.

While it was unrealistic to go from a situation of having no wind investments and private sector participation in renewable energy to 60 MW of commissioned wind farms, and all the policy and regulatory work in 3 years, a phased approach to put in place the essential building blocks of wind energy development gradually and in sequence may have been a better alternative.

2. Usefulness of the strategic results framework

The evaluation has shown that there were serious design flaws in the results framework (and the project document) that also capture the over ambitious or unrealistic investment targets and the corresponding direct GHG emission reductions that the GEF- financed project was expected to deliver. There were design flaws in the project document and results framework that have made the evaluation of impacts difficult.

While the project has been adaptive in reformulating the results framework, it has not fully capitalized on its usefulness as a tool for the proper implementation and monitoring and evaluation of the project. The main lesson learned is the need to also cover the outputs of the project in the results framework.

3. Catalytic effect

Given that the project implementation has overlapped with the difficult post-revolution political transition in Tunisia, and given the resistance of STEG (Societé Tunisienne de l'Electricité et du Gaz) to provide political support for the liberalization of the power supply market, the catalytic role of the project has been partial. Nevertheless, it has built the foundation for private investment in renewable energies to take place, especially through other initiatives like "NAMA Support to the TSP" that is being implemented by the ANME. This shows that Outcomes 1, 2 and 3 are essential elements for the removal of barriers and that the corresponding outputs can be effective policy de-risking instruments to promote private investments in wind energy (and more broadly in Renewable Energy).

4. Adaptive management

There is evidence that the project has not been able to adapt to the main challenge it faced, that is resistance from STEG (Societé Tunisienne de l'Electricité et du Gaz) for politically supporting private generation of on-grid electricity from wind power. It would have been useful for the project to develop a strategy to tackle the issue of STEG resistance at the beginning of the project implementation. A sound approach would have been to acknowledge the problem but to see it as an opportunity to develop a strategic partnership with STEG in order to provide a healthy platform to deal with any issues related to this resistance. This would have been especially meaningful given the fact that the resistance from STEG to support private sector involvement in renewable energy generation was not assessed in sufficient depth during project design.

9.2 Briefly describe the recommendations given in the terminal evaluation.

There are no additional recommendations made beyond those already included in the 'lessons learned' section above.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	GEF EO comments	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The report contains a very detailed assessment of all relevant outcomes, project impact, outputs and the achievement of objectives. The discussion was well structured, balanced and well evidenced.	нѕ
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is consistent, the evidence is complete and convincing, and most ratings are well substantiated.	S
To what extent does the report properly assess project sustainability and/or project exit strategy?	The report discusses sustainability thoroughly, but fails to clearly discuss the final future of the project.	MU
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learned appear comprehensive and are rooted in evidence presented elsewhere in the report.	S
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report does not include costs per activity, nor does it have a clear figure for co-financing. Total costs are mentioned.	U
Assess the quality of the report's evaluation of project M&E systems:	The project provides a good discussion of M&E systems and presents a good analysis of its weaknesses.	S
Overall TE Rating		S

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

No additional information sources were used in the preparation of this TER.