

Environmental and Social Completion Sheet (ESCS)

Overview

Project Name:	<i>TAFILA WIND FARM</i>
Project Number:	<i>2011-0433</i>
Country:	<i>Jordan</i>
	<i>Project Description: The project concerns the development, implementation and operation of a 117 MW wind farm in the Tafila Governorate in Jordan. It is connected to the existing 132 kV line that goes through the project site and supply electricity to the national grid.</i>

Summary of Environmental and Social Assessment at Completion

EIB notes the following key Environmental and Social outcomes at Project Completion.

The total capacity of the proposed project is 117 MW as initially planned. The generated electricity is supplied to the public grid. The project is increasing the production of electricity from renewable sources, partly alleviating Jordan's heavy (>96%) energy import dependency in a troubled geopolitical region. The project supports the country's objective of increasing the share of indigenous, renewable energy sources in electricity production. In addition, the project is the first large-scale wind farm developed in Jordan and is contributing to the creation of local employment.

If located within EU, the project would have fallen under Annex II of the EIA Directive. It has been screened in by the national competent authorities who have required a full EIA including public consultation. The wind farm, including its connection to the national grid system, has successfully gone through this procedure and obtained all required environmental approvals.

All environmental permits were issued by the Competent Authorities prior or during appraisal and prior to financial close. Additional assessments, notably on biodiversity, noise and social aspects were carried out to meet lenders' environmental and social requirements and standards, notably EIB and IFC. The promoter has implemented the required additional biodiversity studies, specifically related to seasonal monitoring of migratory and breeding birds in the vicinity of the wind farm. Furthermore, the risk of exceeding noise levels in neighbourhood villages close to the wind farms were identified and reflected in permit conditions.

The ESIA contains Environmental and Social Action Plan (ESAP) and an operational Environmental and Social Monitoring and Mitigation Plan (ESMMP) that sets out how the E&S impacts and risks identified by the assessment will be managed and monitored throughout the project life cycle. The ESMMP includes an implementation timeline for all the actions. The ESMMP contains commitments to develop a comprehensive monitoring and mitigation programme for avifauna, the development of a series of E&S policies to safeguard employees, the local communities and the environment. During the construction period and first 3 years of operation, monitoring and assessment of collision impacts on birds is carried out. In addition, as a mitigation measure, a dedicated shut-down protocol is being developed in order to minimize risk for birds' collisions with the wind turbines. Whilst there have been a few teething problems with the implementation of the mitigation measures, it is considered



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that in principle WTG shutdown is broadly compliant with the ESMMP. The promoter is implementing further recommendations from LTA and –biodiversity expert to improve the shut-down protocol efficiency. The same expert has been appointed to carry out monthly ESMMP audits during operation and the audits have been performed according to the plan. The ESAP also requires the LTA to undertake external monitoring of the key environmental, health and safety issues; this includes a requirement for a minimum of annual monitoring during the first three years of operation, until cessation is agreed with the lenders.

Post construction carcass searching, ESMMP audits, trainings, migration period monitoring and other ESMMP measures are ongoing. In the first instance particular emphasis is placed on auditing griffon vulture and the spring 2016 migration operational bird monitoring mitigation. No related significant issues were reported during the implementation and initial operation of the project. The project has triggered at national level a cumulative impact assessment for the region and a greater awareness of the risks to avifauna and the type of assessments that need to be carried when constructing wind farms in this region.

A noise report was carried out as required by the ESMMP. This included a noise emission measurement at one WTG with noise immission testing at three receiving points/receptors close to the wind farm; the most eastern part of the village of Gharandal; the most south-eastern part of the village of Gharandal; and a compound area at the cement factory. The report indicates that the noise levels of the wind farm is below 35dB(A) at all receptors with the Project in line with the international and Jordanian noise limits.

The stakeholder engagement and public consultation carried out to date has been documented in a Stakeholder Engagement Plan. This document lists all known stakeholder groupings and outlines a set of future stakeholder engagement, a key component of the wide-ranging stakeholder engagement planned for the project.

EIB notes the following key Environmental and Social aspects to be monitored during operations:

It is emphasised that due to the importance of the operational environmental mitigation requirements, particularly in relation to avifauna, it is key that ongoing environmental and social audits (as required by the Project ESAP) are continued by the LTA for a minimum of the first three years of operations.

Summary opinion of Environmental and Social aspects at completion:

EIB is of the opinion, based on reports from the promoter, that the Project has been implemented in line with EIB Environmental and Social requirements applicable at appraisal. However, continued environmental monitoring is required during operations.