

**46575 STEG Tunisia power transmission project**  
**EBRD/EIB/STEG**  
**ENVIRONMENTAL AND SOCIAL ACTION PLAN (ESAP)**

Main STEG departments involved in the ESAP:

DEQ: Division for Equipment (responsible for implementing the power transmission project)

DSE: Division for Security and Environment

DTPE: Division for Transport and Production of Electricity

See other acronyms at the end of the document.

No.	Action	Risk or opportunity	Responsibility	Schedule	Objective/indicator for completion
<b>1. ESAP ORGANISATION, IMPLEMENTATION AND MONITORING</b>					
1.1	<p><b>ESAP organisation</b></p> <p>Designation of a person at STEG who will be responsible for the implementation and follow-up of the ESAP. STEG has suggested that this “ESAP officer” could be DEQ’s current Health, Safety and Environment (HSE) officer. This person will be assisted by the DSE.</p>		STEG – DEQ	Describe the organisation when signing the financing agreement. The organisation will be in place for the entire duration of the loan.	Organisation in place
1.2	<p><b>Annual report</b></p> <p>Provide an annual report describing implementation of the ESAP. EBRD will provide the report format.</p>		STEG – DEQ	Entire duration of the loan	Annual report provided

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<b>2. INTEGRATED QUALITY MANAGEMENT SYSTEM</b>					
2.1	<p><b>Obtain ISO 14001 and ISO 45001 certification/Marhaba quality label<sup>1</sup> for the concerned STEG entities</b></p> <p>ISO 9001, ISO 14001 and ISO 45001 (OHSAS 18001) certification :</p> <ul style="list-style-type: none"> <li>• DEQ</li> </ul> <p>ISO 14001 and ISO 45001 certification :</p> <ul style="list-style-type: none"> <li>• STEG Tunis Nord Power Transmission Base</li> <li>• North-East Power Transmission Base</li> </ul> <p>Marhaba quality label for the following STEG districts:</p> <ul style="list-style-type: none"> <li>• Ariana</li> <li>• Le Kram</li> <li>• Nabeul</li> <li>• Manouba</li> </ul>	<p>STEG mostly works along appropriate procedures, but there is a lack of documentation/knowledge of these procedures.</p> <p>STEG has already worked on ISO 9000, 14000, 26000, 45000, 55000 certifications, but has slowed down since 2011. STEG has now started working on an Integrated Quality Management System.</p> <p>Opportunity to speed up this process for the entities that will implement the project.</p> <p>Bases and districts have ISO 9001 certification already.</p>	STEG – Total Quality Project	2018	Certifications/labels obtained
2.2	<p><b>Organisation for social impacts management at STEG</b></p> <p>STEG will describe and implement an organisation for the management of social impacts of projects, including:</p> <ul style="list-style-type: none"> <li>• Follow-up and monitoring of social impacts</li> <li>• Public information and consultation ;</li> <li>• Land Acquisition and Compensation (cf 3.2).</li> </ul>	<p>Social impact management of projects is currently spread over several STEG entities: the « Citizen Relationships Bureau », the « Communication Development Project », the « Legal Affairs and Insurance Project », the DEQ and the Districts.</p>	DSE, DEQ, Districts, Citizen Relationships Bureau, Communication Development Project, Legal Affairs and Insurance Project	3 months after signature of the finance agreement	Organisation in place

<sup>1</sup> A national quality label for customer reception.

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<b>3. ENVIRONMENTAL AND SOCIAL MANAGEMENT OF THE POWER TRANSMISSION PROJECT</b>					
3.1	<p><b>Stakeholder Engagement Plan</b></p> <p>Implement the project's Stakeholder Engagement Plan. The Plan defines the information, consultation and communication actions which will be implemented by STEG during the different project phases. For instance, the SEP describes public information meetings and the project grievance mechanism</p>		ESAP Officer (assisted by DSE and communication department)	Duration of the loan	Actions described in the annual ESAP report
3.2	<p><b>Land Acquisition and Compensation Framework</b></p> <p>Implement the procedures of the Land Acquisition and Compensation Framework. This includes preparation of the following documents :</p> <p><u>Before the project</u></p> <ul style="list-style-type: none"> <li>• Documentation of the land acquisition and compensation procedure</li> <li>• Description of the eligibility matrix and compensation principles (including compensation for permanent loss of access to land under electrical towers (pylons))</li> <li>• Document describing the preparation of: <ul style="list-style-type: none"> <li>○ the database of affected persons</li> <li>○ the socioeconomic surveys needed to assess the project's impact on incomes</li> </ul> </li> </ul> <p><u>Once a contractor is selected and detailed route design has started</u></p> <ul style="list-style-type: none"> <li>• Report on the socio-economic surveys</li> </ul> <p><u>After construction</u></p> <ul style="list-style-type: none"> <li>• Documentation of the entire procedure, including but not limited to : <ul style="list-style-type: none"> <li>○ Identification of affected persons</li> <li>○ Socioeconomic monitoring</li> <li>○ Monitoring of the compensation process</li> <li>○ Grievance mechanism</li> <li>○ Independent audit</li> </ul> </li> </ul>	<p>STEG currently follows appropriate procedures for land acquisition and compensation, but some items are missing to reach conformity with good international practices:</p> <ul style="list-style-type: none"> <li>• monitoring</li> <li>• Socioeconomic assessment</li> <li>• compensation for permanent loss of access to land under electrical pylons</li> </ul>	ESAP officer, project manager, contractor, STEG districts, STEG Legal Affairs and Insurance Project	To start with the tendering procedure	<p>Reports are provided to EBRD</p> <p>Conformity with EBRD and EIB social policies</p>

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3.3	<p><b>HSE monitoring and control of construction and operation</b></p> <p>Prepare a procedure for monitoring and control of HSE aspects during construction and operation, which will be included in DEQ's ISO 45000 (OHSAS 18001) management system. The procedure will include all the items listed under 4.6.</p> <p>Include monthly HSE monitoring of construction activities based on the building site logbook.</p>	Despite appropriate HSE procedures, daily HSE practice seems insufficient on building sites	DSE and all entities working on building sites	<p>Definition of the procedure : 3 months</p> <p>Following ISO 45000 certification schedule</p>	<p>A written procedure exists</p> <p>Monthly HSE report is available during the entire construction period</p>
3.4	<p><b>Avian protection plan</b></p> <p>Prepare and implement an avian protection plan for the power lines</p>		ESAP officer	Avian plan submitted to EBRD before the end of construction, implemented during the entire loan period	Implementation described in annual ESAP report
<b>4. ENVIRONMENTAL MANAGEMENT AND OCCUPATIONAL HEALTH AND SAFETY DURING CONSTRUCTION</b>					
4.1	<p><b>Risks assessment for construction works for power lines and underground cables</b></p> <p>Prepare a risk assessment as basis for action 4.2 below</p>	No such risk assessment currently exists	DSE and all entities working on building sites	Immediately	Risk assessment is produced

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4.2	<p><b>Specifications for prevention of occupational health and safety (OHS) risks for all STEG workers</b></p> <p>The specifications can be included in the OHSAS 18000 or ISO 45000 system. It is recommended to include them in a worker's manual. They should cover at least :</p> <p><u>For all workers</u></p> <ul style="list-style-type: none"> <li>• <b>Transportation in vehicles*</b></li> <li>• <b>Walking*</b></li> <li>• Musculoskeletal disorders</li> <li>• Handling of loads</li> <li>• Working with screens</li> <li>• Dangerous chemical products</li> <li>• Noise</li> <li>• Fire</li> <li>• Radiotelephones and mobile phones</li> <li>• <b>Relations with the public*</b></li> </ul> <p><u>For workers on building sites</u></p> <ul style="list-style-type: none"> <li>• <b>Personal protective equipment (PPE)*</b></li> <li>• <b>Organisation and signalling of sites*</b></li> <li>• <b>Works at height*</b></li> <li>• <b>Excavations*</b></li> <li>• Cutting of trees and bushes</li> <li>• Machinery</li> <li>• Machine handling of loads</li> <li>• Asbestos</li> <li>• Natural environment</li> </ul> <p><b>*particularly relevant for the present project</b></p>	<p>OHS specifications for workers exist for live working and are included in a worker's manual, but no specifications for other types of work has been identified</p>	<p>Will concern DEQ for the construction phase and the DPTE for the operation phases.</p> <p>To be prepared by DSE in cooperation with relevant personnel and HSE officers. To be validated by STEG's HSE committee.</p>	<p>Draft : mid-2016</p> <p>Validation under the quality management system : 2018</p>	<p>Worker's manual is handed over to all workers</p> <p>Improvement of STEG's accident statistics</p>
4.3	<p><b>Training and accreditation of all the building site personnel</b></p> <p>All employees of contractors and sub-contractors working on STEG's building sites will receive training at STEG's training center and be accredited for safe work on building sites.</p>	<p>Ensure that all construction site workers adopt appropriate OHS procedures</p>	<p>STEG and contractors</p>	<p>2018</p>	<p>All building site personnel is accredited</p>
4.4	<p><b>OHS training and awareness raising for STEG construction site managers</b></p> <p>Building site managers must be better aware of the need to implement OHS procedures (cf 4.6) and environmental management of construction sites.</p>	<p>Despite appropriate HSE procedures, daily HSE practice seems insufficient on construction sites</p>	<p>DSE (provision of training) and DEQ</p>	<p>Before construction</p>	<p>All site managers working under the project are trained</p>

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4.5	<p><b>Quality certification of contractors</b></p> <p>Contractors bidding for construction of power lines or substations for DEQ will be required to prove that they are certified by an independent auditor for management of quality, environment and OHS (ISO 9001, ISO14001 – OHSAS 18000 or ISO 45000).</p> <p>This requirement will apply to :</p> <ul style="list-style-type: none"> <li>• All tenders for construction of electrical substations or high-voltage lines</li> <li>• All construction projects worth more than 1 million dinars (this limit will be readjusted periodically)</li> </ul>	<p>STEG does not require all contractors to be certified (NB : most contractors are ISO 9001-certified and some are ISO 14001-certified)</p>	<p>DEQ, purchasing department</p>	<p>When tendering</p>	<p>All contractors are quality certified</p>
4.6	<p><b>ESMP and contractor HSE plan</b></p> <p>STEG will reinforce the current environmental and social prescriptions of its tenders by preparing an ESMP (Environmental and Social Management Plan). The HSE plan to be submitted by contractors should be conform to this ESMP. The ESMP will cover (but not be limited to) :</p> <ol style="list-style-type: none"> <li>(i) organisation for HSE</li> <li>(ii) signalling of building sites</li> <li>(iii) excavation works</li> <li>(iv) works at height</li> <li>(v) waste</li> <li>(vi) oil and other dangerous or polluting substances</li> <li>(vii) soils, erosion and revegetation</li> <li>(viii) felling of trees</li> <li>(ix) workers' accomodation and sanitary facilities on building sites</li> <li>(x) first aid</li> <li>(xi) dust and gas emissions</li> <li>(xii) noise</li> <li>(xiii) liquid effluents</li> <li>(xiv) protection of waterbodies</li> <li>(xv) relations with the public</li> <li>(xvi) site rehabilitation</li> </ol> <p>The cost of this HSE plan will be identified separately in the bidding documents.</p>	<p>STEG asks for a security plan in its tender documents, but not for an environmental management plan.</p>	<p>DEQ, purchasing department</p>	<p>ESMP in tender documents for the project, even in a simplified version</p> <p>Detailed EMSP prepared 6 months after signature of financing agreement</p>	<p>ESMP prepared</p> <p>HSE plan submitted and validated by STEG for each contract</p>

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4.7	<b>HSE accreditation of sub-contractors</b> Formalise the current procedure for accreditation of sub-contractors, including HSE criteria. In particular, require a % of personnel trained for first aid.	All personnel working on building sites should adopt the same HSE procedures as STEG	STEG (purchasing department)	Before the tendering procedure for the project	The accreditation procedure is described and includes HSE criteria
4.8	<b>Sub-contractors HSE plan</b> Sub-contractors will be required to present their own HSE plan. This plan should include designation of a person responsible for HSE on the building site. The plan should be validated by the contractor and conform to the contractor's HSE plan.				All sub-contractors have provided a plan, validated by STEG
<b>5. ELECTROMAGNETIC FIELDS</b>					
5.1	<b>Laying underground cables at distance from dwellings</b> As much as reasonably possible, underground power cables will be laid at a distance from dwellings : <ul style="list-style-type: none"> <li>• 7 m or more for 90 kV cables;</li> <li>• 10 m or more for 225 kV cables</li> </ul>	Precautionary measure to avoid all questions about the impact of electromagnetic fields, even if these impacts are insignificant	DEQ	Design phase	Maps of underground cables provided
5.2	<b>Public information about electromagnetic fields</b> The public will be informed about the possible impacts of electromagnetic fields by means of a website and flyers.	Idem.	STEG Communication Development Project	Before construction	Website exists and flyers have been provided
5.3	<b>On demand measurement of electromagnetic field intensity</b> Residents living nearby power lines can ask STEG (via the local under-delegate) to measure the field intensity in their houses.	Idem.	DSE	Duration of the loan	STEG performs measurements when asked

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<b>6. FUTURE POWER TRANSMISSION PROJECTS</b>					
6.1	<p><b>Planning of new transmission projects (electrical substations, power lines and underground cables) : environmental and social aspects</b></p> <p><u>Decisions about future project should consider environmental and social aspects, as follows:</u></p> <ul style="list-style-type: none"> <li>• Prepare strategic or regional impact assessments of power transmission programs</li> <li>• Programs should be conform STEG's environmental and social policies: public service, energy savings, greenhouse gas emission reductions, production of renewable energies etc.</li> <li>• Environmental and social aspects should be considered not only in the detailed design of power lines, but also in the decision to build the line or not</li> <li>• Include public consultations at the planning stage for all projects</li> <li>• Prepare environmental and social impact assessments for all power transmission projects, including assessment of impacts on landscape and avifauna, and including public consultation</li> </ul>	<p>STEG currently does not include environmental and social aspects when comparing alternatives for power transmission (except the systematic avoidance of urban areas)</p> <p>The environmental and social assessment prepared for the project is not conform with EU Directive 2011/92/UE (modified in 2014) (but has been complemented)</p> <p>The public consultations performed to date for the project do not include sufficient stakeholders representing local residents (but these will be consulted through the Stakeholder Engagement Plan)</p> <p>Opportunities exist to improve STEG's practice for the next programs</p>	<p>Planning department and DEQ, assisted by DSE and STEG's Communication Development Project</p>	<p>Next power transmission program</p>	
6.2	<p><b>Land acquisition and compensation procedure for future projects</b></p> <ul style="list-style-type: none"> <li>• Finalise the « SERVITUDE » project<sup>2</sup></li> <li>• Work with the Tunisian government on a system to compensate farmers for permanent loss of access to land under electrical pylons</li> <li>• Develop an internal procedure for identification, information and compensation of affected persons, which will be standardized and applied to all projects in a systematic way.</li> <li>• Implement and monitor the application of the procedure.</li> </ul>		<p>STEG + Tunisian State</p>	<p>2 years</p>	<p>The « Servitude » project is finalised</p> <p>The Tunisian law is changed if needed.</p>

<sup>2</sup> Ongoing STEG project for improvement of the current land acquisition and compensation procedure

## **Acronyms**

DEP	Direction des Etudes et de la Planification (STEG planning department)
DEQ	Direction de l'Equipeement (STEG)
DPTE	Direction de la Production et du Transport d'Electricité (STEG power production and transmission department)
DSE	Direction Sécurité et Environnement (STEG)
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
ESAP	Environmental and Social Action Plan
ESMP	Environmental and Social Management Plan
HSE	Health, Safety and Environment
ISO	International Standardization Organization
OHS	Occupational health and safety
STEG	Société Tunisienne d'Electricité et de Gaz
UE	European Union