

Environmental and Social Data Sheet

Overview

Project Name: *Lake Turkana Wind Farm*
 Project Number: *2009-0484*
 Country: *Kenya*
 Project Description: *310 MW onshore wind farm in North Kenya, East of Lake Turkana*

EIA required: yes

Project included in Carbon Footprint Exercise: yes

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

An Environmental and Social Impact Assessment, including public consultation and in line with national legislation, has been undertaken for the wind farm¹ and for the associated road works² and high voltage transmission line³. The latter, managed by the Kenya Transmission Line Company (Ketraco), is regarded as an associated facility to the project from an E&S due diligence perspective. General environmental and social management plans have been attached to the aforementioned ESIA studies. All relevant and necessary environmental licenses have been granted to the project by the authorities in charge. At this stage, no significant residual environmental impacts are expected.

In terms of social due diligence, the principal impacts arise out of the land and way leave acquisition components, through involuntary resettlement and/or economic displacement at the wind farm site (incl. the access roads rehabilitation) and on the southern section of the transmission line. Marked by a different scale and nature of impact, the most affected area is encountered along the transmission line with approximately 1,466 plots and 1,580 affected households. Therein, the largest share of impact concerns economic displacement, featuring solely loss of land, whilst only an estimated 120 households will undergo actual physical and economic displacement. In the vicinity of the wind farm, an entire settlement of a pastoralist clan will have to be relocated, whilst further attention will be directed at safeguarding their livelihoods in light of the imminent influx of migrant labour force for the project, potentially disturbing the existing socio-economic and demographic dynamics of 100 households. Finally, there will be limited permanent resettlement provoked by the roads improvement works component.

Resettlement Action Plans (RAPs) and Abbreviated Resettlement Action Plans (ARAPs) are already developed accordingly and are acceptable save for a limited degree of revision still required prior to financial close. In terms of other safeguards, due attention is paid to observing and enforcing labour, occupational and public health and safety standards. The relevant sections and action plans in the ESMP will require revision prior to first disbursement in order to ensure compliance with EIB standards. In particular, the ESMP shall be further elaborated to cover a number of action plans pooling together and/or formalizing ongoing activities by the promoter, such as a Local Recruitment Plan; a Traffic Management Plan; an Influx Management Plan and a Stakeholder Engagement Plan. The latter will be crucial in ensuring effective access to information, grievance and recourse for all local communities

¹ (license issued 24/07/2009, updated 14/07/2011)

² (license issued 26/01/2011 updated 30/08/2011)

³ (license issued 24/07/2009 updated and transferred to KETRACO on 22/07/2011)

and, in particular, those most affected along the T-line where most of the impact is concentrated.

Finally, in order to ensure compliance with relevant EIB standards and to build upon the existing Coordination Agreement between the promoter and Ketraco, separate undertakings will be introduced between the EIB and Ketraco aiming to reinforce the management of resettlement and other social safeguards components along the transmission line.

Environmental and Social Assessment

Environmental and Social Impact Studies, including public consultation, in line with National legislation, have been performed for the wind farm and for the associated road works and high voltage line.

To confirm compliance to WB operational guidelines and IFC performance standards, a gap analysis was performed⁴ in 2011. Based on this, complementary studies and actions have been carried out including an ornithological survey, noise and air quality baseline study, resettlement action plans and formalization of community engagement

Environmental Assessment

Wind farm and roads:

From the available studies, the project would not have a significant negative impact on biodiversity or on any site of nature conservation importance. The project foresees replanting of trees and the development of a nursery, which is to be further specified in the ESMP.

The habitat of the affected areas is considered degraded and not critical, but some IUCN listed avifauna are present in the area. Also, Lake Turkana is a known route of bird migration. Bird and bat surveys have been performed, and it is unlikely that there will be a significant impact to migrating birds through collision with the turbines or power cables. However, a small risk remains for a number of the rarer species such as tawny and steppe eagle passing through the site. Proposed mitigation measures include bird reflectors on the power cables. In case of tree felling, which will anyway be very minor given the limited vegetation in the area - specific procedures are being proposed to minimize impact on bats, including inspection of tree cavities and no removal of maternity roosts. Further monitoring will be incorporated in the ESMP.

Availability of groundwater for construction and human consumption reportedly has been analysed and tested and is not expected to be an issue.

With regards to the road works and transport, the studies identify noise, dust and traffic safety during construction/rehabilitation of the roads, in particular on the Sirima settlement, as a potentially negative impact, requiring further attention in the environmental management plan.

T-line

The ESIA gap analysis concluded that some baseline information was missing with regards to actual impacts on biodiversity. In response to this gap, the consultant verified that the T-line would not impact any specific nature conservation area. The survey included a visual survey over the T-line trajectory. No specific areas of concern have been raised. A final written confirmation from the competent authorities is still requested prior to financial close.

The draft ESMP includes an overview of the impacts considered and the suggested mitigation measures. Mitigants to bird impact along the T-line include wire-marking and the construction of raptor platforms on top of pylons for nesting. Disturbed areas will be re-vegetated with native plant species, and no pesticides are to be used during clearing. The T-line is expected to pass through the Pesi Swamp and the Malewa River. Riverine vegetation should be minimally disturbed during the construction phase to reduce soil erosion and safeguard

⁴ URS Scott Wilson- May 2011

riverbank protection. Further measures relate to waste management, H&S, noise and dust during construction and transport.

EIB Carbon Footprint Exercise

Estimated emissions savings are in the order of 980 ktonnes of CO2 equivalent per year.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Social Assessment

The project in terms of its entire footprint (associated facility of T-line included) activates all of EIB's social safeguards. However, benefitting from a due diligence engagement by the World Bank preceding that of the EIB, it has already developed a series of relevant required documentation and forward planning largely compliant with the EIB standards. Social performance is further enhanced by the steering role delivered by an E&S team versed and experienced in IFI safeguards and procedures.

Analytically:

(a) Temporary and permanent involuntary resettlement will be required across the wind farm, the access roads to the farm owing to rehabilitation works, as well as the associated T-line. In compliance to EIB requirements, a resettlement policy framework (RPF) has been developed, defining the principles set to guide a consistent approach to resettlement across the entire project and the associated facility of the T-line, in particular the elaboration of both fully fledged and Abbreviated Resettlement Action Plans (RAPs/ARAPs) across the different sites of impact. The key objectives of the RPF are compliant with the relevant EIB standard on involuntary resettlement, in that they endeavour to avoid or minimise resettlement where possible and where unavoidable, to ensure that resettlement and compensation are conceived in a manner that restores or improves the livelihoods of those affected. It has been such RPF that has led to the subsequent elaboration of a RAP (T-line) and two ARAPs (wind farm site and roads rehabilitation component), all of which are largely aligned with the EIB standards. The subsequent progress and implementation of all these resettlement action plans will require further monitoring by the promoter and the Bank's services. Site-specifically, the following involuntary resettlements have been triggered:

- Resettlement at the wind farm site will involve physical resettlement, whereby the entire pastoralist community of Sirima, entailing approximately 100 households, will be relocated to a nearby site. The latter was selected in consultation with the community, remains in close vicinity to their current location, proactively protects the community from the increased traffic anticipated with the commencement of works (in that it is at some distance from the road) and enjoys their broad support. Moreover, the intended resettlement undertaking promotes improvement of livelihoods by way of enabling access to water through a borehole already provided for by the project. Final details to be agreed with the community in the implementation of the RAP concern the exact materials of their housing units, specifically in terms of whether they will result in permanent structures or the current type that requires rebuilding every 1-2 years. Such choice will also determine who will be involved in their construction: delivery of permanent structures implies the leading involvement of the project and an increase in the RAP budget whilst temporary structures imply local (largely female) labour. The community's female population largely supports the solution with permanent structures and it is the services' opinion that gender implications should be taken into account in subsequent consultations and decision-making procedures on the matter. Otherwise, overall consultation to date was deemed to be of a very high standard by the Bank's services and benefitting from commendable communication links to the project coordination, ample evidence of which was attained during appraisal.

- Resettlement, both physical and largely economic, is also required along the associated T-line trajectory due to wayleave requirements. Based on census and socio-economic surveys undertaken to-date by the project team, a total of approximately 1,465 plots/1,580 affected

households are expected to be affected. The predominant majority of these plots (99%) are located in the southern section of the T-line, namely the first 200km from Nairobi northwards. Therein, the largest portion features solely loss of land (1460 affected households), whereby 249 households will suffer way-leave impact exceeding 50% of their plot's size. An estimated 120 households will undergo physical and economic resettlement. The remainder of the plots (namely where way-leave will affect less than 50% of the plots' size) will be duly compensated for the land, crops and relocation (within the same plot) of any structures. A total of 521 households have been determined as vulnerable in terms of severity of impact, insecurity of tenure and presence of elderly/disabled affected persons and female heads of households.

This component is being managed by KETRACO and to date has benefitted from technical assistance provided by the project, crucially in terms of the compilation and subsequent disaggregation of census/socio-economic baseline data and the on-the-ground deployment of the promoter's staff mandated to enable information dissemination and facilitate the resettlement process. A fully-fledged RAP is already available and guiding resettlement/compensation action to date. Nonetheless, going further, revisions to the RAP and reinforcement of its execution are required to ensure adherence to EIB standards, both vis-à-vis KETRACO directly and through the assistance and oversight extended by the promoter to it. Specifically, improvements will be required in terms of:

- i. finalization of census and baseline data
- ii. better definition of the vulnerable population
- iii. pursuance and implementation of measures aiming to compensate for temporary or permanent loss of livelihoods, as well as their effective restoration
- iv. improvement of mitigation measures currently foreseen for a community of 31 squatter households which have already suffered involuntary resettlement once in the recent past
- v. improvement of the timely disclosure of information to all affected persons
- vi. improvement of the structure, procedures and operation of the Grievance mechanism foreseen in this component
- vii. improvement of the institutional arrangements catering for the execution of the RAP (KETRACO, local administrative units and the promoter's technical assistance team)
- viii. RAP budget update.

- Finally, very limited permanent resettlement is also required along the roads rehabilitation component and an Abbreviated RAP (ARAP) has already been developed by the promoter. It is understood that the detailed alignment of the road, including the necessary way-leaves, is yet to be determined and, in this light, clarifications in this respect will be required prior to financial close.

(b) Prior to financial close, the promoter will be required to develop an Environmental and Social Management System (ESMS) to guide implementation of the ESMP developed for the wind farm and the roads rehabilitation components as well as the ESMP for the T-line. Adequate resources should be dedicated towards the ESMS implementation; though the T-line is ultimately the responsibility of KETRACO, support and oversight by the project to Ketraco during ESMP development, implementation and monitoring is to be part of the project's overall ESMS on a best effort basis.

All Environmental and Social Management Plans in the project (incl. the Wind Farm as well as for the T-line) are required to include a.o.:

- i. Budgets, Milestones
- ii. Project Staffing Schedule
- iii. Monitoring and reporting program;
- iv. Procedures for preventing damage or impact on cultural artefacts or local symbols
- v. Contractor SHE management plan
- vi. Biodiversity and reforestation programme (including bird and bat monitoring)
- vii. Water Management plan

- viii. Updated Community Engagement Plan/Stakeholder Engagement Plan (including Grievance mechanism provisions and procedures and institutional arrangements across KETRACO, the promoter and local administrative personnel)

Specific additional elements to be included in the ESMP concerning the wind farm/roads rehabilitation sites are:

- Influx Management Plan, targeting the management of the introduction of migrant labour presence and the creation of a permanent base camp on site and their interactions (cultural, social, public health, economic) with the village of Sirima and other pastoralists in and surrounding the project's footprint;
- Traffic Management Plan, incl. road safety considerations for the local communities;
- Local Recruitment Plan, thereby formalizing a number of commendable initiatives already undertaken to date by the promoter to this end and conceptualising them under a strategy which will explicitly target employment generation amongst the local communities and promote benefit-sharing across the different clans in the area;
- Security Management Plan, stipulating principles and practices to guide security arrangements on-site and around assets, whether by promoter's own staff or contractors (G4S);
- Labour policy and Occupational Health and Safety (OHS) standards & best practices (sector-specific, too, if relevant) to be observed by promoter and applied equally by contractors.

Specific additional elements to be included concerning the T-line are:

- Labour standards and Occupational Health and Safety (OHS) standards & best practices (sector-specific, too, if relevant) to be observed by KETRACO and applied equally by contractors;
- Traffic Management Plan, incl. road safety considerations for the local communities;
- Public Health;
- Security Management Plan, stipulating principles and practices to guide security arrangements on-site and around assets, whether by KETRACO's own staff or contractors.

Public Consultation and Stakeholder Engagement, where required

To date, the project has undertaken consultation in accordance with national requirements. Stakeholder consultation has been carried out for all three components of the project, key issues being identified in the ESIA studies.

In terms of on-going stakeholder engagement with local communities and, in particular, with persons affected by the project, the project features an imbalance between the footprint area directly managed by the promoter and consultation practices undertaken therein.

(i) At the wind farm site, the Bank's service verified that consultation to date has been of a very high standard, benefitting from commendable communication links to the project coordination, the personal commitment and local knowledge (incl. linguistic facility) of the promoter's appointed liaison person and the frequency of local presence afforded until now. Overall, local residents seem to be supportive of the project. The principal concerns were expectations surrounding job creation and local electrification, thereby pointing to reasonable benefit-sharing expectations arising out of the project in the region. They have also considered the risks of cultural conflict and increased sexually transmitted infections linked to labour influx, as well as the overuse of scarce resources such as wood or water.

(ii) At the T-line section visited by the Bank's services (southern section), stakeholder engagement was deemed to be not satisfactory, featuring poor information flows, a weak grievance procedure on the ground and a limited and not meaningful 2-way communication between the project and the affected communities and persons. Despite the personnel lent to KETRACO by the promoter for this purpose and the local administrative personnel mobilized by KETRACO, the sheer footprint of the T-line (200km and 31 different communities) is

proving challenging, as is the lack of an explicit Stakeholder Engagement Plan (SEP) or trained community liaison officers. These concerns have been raised by the EIB services with both the promoter and KETRACO and are expected to be effectively addressed by first disbursement.

Going forward, any additional requirements – as commented above – will be put in place to support ongoing engagement and communication with local communities and stakeholders along the wind farm, road works site and the T-line. Their effective implementation will be further monitored going to financial close and into construction.

Other Environmental and Social Aspects

Aside from the risk/impact management component of the project's due diligence undertaken to date, the promoter is further committed to implement a 20-year long Corporate Social Responsibility Programme that aims to deliver additional socio-economic benefits to the region and to the marginalized communities in the project area. Such benefits range from road rehabilitation, improved access to electricity for surrounding communities, schools and hospitals, improved water quality and the development of cold storage facilities for the fish caught in Lake Turkana. The Bank's services welcome and support this voluntary initiative, as it is largely set to manage local expectations with regards to local electrification and other benefits arising out of the project. The promoter has, nevertheless, been advised that the currently drafted CSR programme entails certain actions that qualify rather as risk mitigation measures prompted by the involuntary resettlement component of the project; the CSR programme should, thus, be duly redrafted, moving such elements under the RAP/ESMP provisions, given they respond to relevant EIB requirements.

Finally, the promoter's capacity is deemed satisfactory in terms of E&S expertise and commitment to the local communities. However, the appointment of an E&S manager will be required at the project site at Lake Turkana, charged with the oversight of the implementation of all resettlement plans and the project's ESMP and associated action plans entailed therein. Confirmation of such appointment constitutes an undertaking. Equally, the promoter's support to KETRACO along the T-line will need to be maintained and strengthened where required, in terms of numbers of staff deployed and dedicated to facilitation of RAP and ESMP implementation and monitoring; in addition, the promoter is expected to confirm their extended presence and accompaniment of E&S activities along the T-line until conclusion of the RAP and completion of the construction phase.

Social requirements and management

Prior to financial close:

- a) Revised RAP for the T-line, as detailed in earlier section, is submitted for non-objection
- b) Updated ARAP for the wind farm, as detailed in earlier section, is submitted for non-objection
- c) Revised Environmental and Social Management Plans (incl. the Wind Farm, Roads Rehabilitation and the T-line), as detailed in earlier section, are submitted for non-objection
- d) An Environmental and Social Management System (ESMS) to guide implementation of the ESMP developed for the wind farm and the roads rehabilitation components as well as the ESMP for the T-line. Adequate resources should be dedicated towards the implementation of the ESMPs and the ESMS; though the T-line is ultimately the responsibility of KETRACO, support and oversight by the project to Ketraco during ESMP development, implementation and monitoring is to be part of the project's overall ESMS on a best effort basis.

- e) Outstanding licenses and permits will have to be obtained (including license waste management and incineration, base camp building permit, inter alia)

Undertakings

The promoter will undertake to pass through E&S requirements in the project tender documents, project contracts and monitoring arrangements concerning contractor performance and compliance. Detailed ESMPs will have to be produced by the project contractors during construction and operations, conforming to the provisions of the project ESMP.

The promoter will undertake to maintain the current interface with Ketraco to ensure compliance with EIB E&S performance standards, notably with regards to community engagement and observance of their right to accessing information, grievance and recourse. To this end, the promoter's technical assistance team on the T-line will be strengthened, in terms of numbers of staff deployed and dedicated to facilitation of RAP and ESMP implementation and monitoring. Finally, the promoter will confirm their extended presence and accompaniment of E&S activities along the T-line until conclusion of the RAP and completion of the construction phase.

The project will be required to provide an annual report on social, H&S and environmental performance, for review by the lender's advisor. Throughout the RAP/ARAP implementation period, relevant reporting should be on a quarterly basis.

The EIB will also impose certain monitoring and reporting conditions that will be included in the Finance contracts and also in the Direct Agreement with Ketraco.

Direct Agreement with Ketraco

Ketraco will undertake to pass through E&S requirements in the project contracts and monitor contractor performance. Detailed ESMPs will have to be produced by the project contractors during construction and operations.

Ketraco will undertake to maintain the current interface with LTWP to ensure compliance with IFC E&S performance standards, notably with regards to community engagement.

Finally, Ketraco will be required to provide an annual report on social, H&S and environmental performance, for review by the lender's advisor.