

Public Environmental and Social Data Sheet

Overview

Project Name:	LEBANON ROUND 1 WIND
Project Number:	20180566
Country:	LEBANON
Project Description:	Construction and operation of two onshore wind farms in the north-eastern region of Akkar in the Republic of Lebanon, with a capacity of 89.1 MW and 67.1 MW respectively, under the Round 1 Wind Independent Power Producer program.

EIA required: yes

Project included in Carbon Footprint Exercise¹: yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The project consists of the development and operation of two wind farms in two sites in Lebanon, a high altitude site (Lebanon wind Power, LWP, 89.1MW) and a low altitude site (Sustainable Akkar, SA, 67.1MW), in the Akkar region in north-east Lebanon, and their associated connection infrastructure.

The high altitude site (LWP) is located on a mountain ridge of Jroud Akkar in the Akkar District at an altitude ranging from 1,200m to 2,190m. The low altitude site (SA) is located also on the same mountain ridge at an altitude ranging from 791m to 1315m. This region in Lebanon is very rich in biodiversity due to its concentration and distribution of important fauna and flora. The two sites are located within or in the vicinity of internationally and nationally designated biodiversity sites, namely: (i) both sites are located within the Akroum Key Biodiversity Area (KBA), (ii) both sites are neighbouring with the Upper Mountains of Akkar-Donnieh Important Bird Area (IBA) & KBA, (iii) the high altitude site is partially within the Karm Chbat Forest Nature Reserve which is a protected area designated by the Lebanese Ministry of Environment.

The EIA process in Lebanon is established through Law 444/2002 and its relevant application decree 8633/2012, which stipulates that proponents undertake an assessment for all projects likely to affect the environment due to their sizes, nature and impacts of activities. According to this law, each of the two-wind farm required a full EIA, which included a scoping phase and public consultation. The EIA studies were submitted to the MoE for review in November 2018 and the MoE has granted its conditional approval in July 2019. The conditions of the approval concern the preparation of a monitoring protocol for the bats, birds and clarifications regarding the impacts in the nearby protected forests and mitigation.

¹ Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.

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Even though the EIAs prepared are in line with national requirements their scope did not meet the Lenders Standards and requirements, specifically with regards to the characterisation of the environmental and social baseline, the assessment of the impacts and the stakeholder engagement actions. Therefore, in order to comply with these requirements, the promoter has produced, for each wind farm, a supplementary draft Environmental and Social Impact Assessment (ESIA), including of a Stakeholder Engagement Plan (SEP), and a high-level Environmental and Social Management Plan (ESMP). The updated documents were then also re-submitted to the MoE for permitting purposes.

The draft supplemental ESIA presents a preliminary assessment of the baseline, the expected E&S impacts of the project and required mitigation measures, going beyond the national requirements. Given that the draft ESIA and some of the related assessments still fall short of meeting Lenders' Standards (including EIB E&S Standards), at the request of the Lenders, the promoter is preparing a comprehensive assessment of the baseline or Social Impact Assessment (SIA), and an additional Environmental and Social Action Plan (ESAP), that the project is designed and implemented to meet Lenders Standards and requirements.

Satisfactory review by the Bank and by the Lenders' Advisor of final Environmental and Social Management System (ESMS), including a list of sub-documents, will be a condition for signature. The Bank will also require the implementation of a sound monitoring, auditing and reporting framework, which will be integrated into the ESMS. Finally, the promoter undertakes to update the plants' ESMS, ESMPs and SEP to incorporate project changes, permits, ministerial requirements and additional information emerging from the ongoing studies.

The main project environmental impacts and mitigation measures are presented below:

Biodiversity (other than birds and bats): The review by the Lenders and their advisors of the biodiversity studies indicated significant gaps in the assessment of the baseline for several species, particularly for floral species. Therefore, a number of improvements were required and are currently under implementation. These may inform that additional critical habitats are present on the site. Therefore, a comprehensive plan for the mitigation and compensation measures will then be required. The Bank will review the final biodiversity assessments in order to ensure full compliance to its biodiversity requirements and standards, adequacy of the baseline and of the mitigation and compensatory measures, where relevant, proposed. The project has also the potential to result in positive impacts through (i) protection of habitat by prohibiting access to hunters, (ii) reduction in fires caused by human activities, (iii) detailed monitoring of the species in the two sites. These measures may result in net gain of certain biodiversity features.

Birds and Bats: dedicated field surveys for the collection of baseline data for birds and bats have been carried out by local experts during the initial EIAs prepared by the promoter. Data available today include results of these surveys and academic studies on the wider area. As the bird migration route through the north-east of Lebanon, is an internationally important route for many species, at the request of the Lenders, additional data is currently being collected and analysed and the appropriate safeguards will be required to be implemented. With respect to migratory birds, both sites are located in a major migratory route, which may result in a barrier effect, however, the sites are not perpendicular to the direction of the migratory birds corridor. Mitigation measures for the impacts on migratory bird include a dedicated management plan and shutdown on demand. In addition, a dedicated bird migration protocol for the windfarms will be provided by the Ministry of Environment, which received support from international experts in preparing it. The mitigation measures will be informed by a collision risk model based on the data already collected and the ongoing survey campaign requested by the lenders.

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With regards to bats, additional surveys are being carried out to improve the understanding of the baseline. At this stage, it is expected that the project may result in significant impacts in bat species present in the site, however with the appropriate mitigation measures in place, impacts can be reduced to a non-significant level. Mitigation measures include protection of the caves onsite from human access, monitoring during operation and, if deemed necessary, increase in cut-in speed and total turbine shutdown at certain periods.

Noise: Due to adequate distance of the wind turbines to the nearest dwellings and based on detailed noise prediction modelling results, the existing ESIA's concluded that the Projects' operational noise impacts are low and remain below national and IFC guidelines noise limits which are in line with EU limits. For three wind turbines, operation at low noise mode may be required. At the request of the lenders, additional modelling is being carried out to capture more scenarios of ambient noise and turbine output.

Visual Impacts and shadow flicker: The visual impacts are significant primarily due to the two wind farms being located at high altitude. In order to minimize those impacts a number of wind turbines were eliminated and the distance between two wind farms has been increased. In addition, cables for the grid connection will be underground. The initial ESIA's also included modelling of the shadow flicker impacts. Results indicate that the impacts may be moderate and recommend the installation of shadow flicker shutdown modules in the turbines as a mitigation measure. The automatic shutdown systems will be activated when certain conditions are reached such as maximum daily exposure to shadow flicker on a receptor or if maximum annual quota of shadow flicker at a receptor is reached. With the mitigation in place, the impact is minor. The Ministry of Environment may also recommend further measures to mitigate impacts from shadow flickers. A revised shadow flicker analysis is also being undertaken and will inform further public consultations with the communities in the areas of influence.

Cultural heritage: Due to the location of the project, the potential for impact is considered low. However, a chance find procedure has been developed according to the requirements provided by the relevant Ministry.

Transport: The implementation of the project requires a set of measures to allow the safe transportation of the project components to the site. These include (i) road obstacle removal, (ii) development of new roads (c. 4km in total in three parts) to avoid impacts to communities. The impacts due to traffic and transport during construction are expected to be minor. These activities are coordinated and permitted by the Ministry of Transport. The impacts of the transport related works are expected to be minor provided that the appropriate mitigation measures are in place (coordination with authorities, communication with the public, frequency of transport missions).

Cumulative impacts: In parallel with the two wind farms under the proposed project, one additional wind farm is under development in the same area. Therefore, a cumulative impact assessment has been carried out. The findings indicate that the cumulative impacts concern primarily impacts during transportation and construction phase. As altitude between the three wind farms is different, no cumulation of other impacts is expected (noise, biodiversity, shadow flicker).

EIB Carbon Footprint Exercise

Estimated emissions savings are 277.3 kt/yr of CO₂ equivalent emissions. Given the intermittent power generation in wind farms in a market with high growth, it is assumed that 50% of generated electricity is replacing power generation in existing fossil-based power

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plants (operating margin) and 50% of generated electricity is replacing power generation in new combined cycle gas power plants.

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

According to the ESIA, the project site overlooks a direct area of influence (DAOI) of ~3km in diameter, and an indirect area of influence (IAOI) including 36 local communities along the equipment transport route from Tripoli to site. The current ESIA describes the socio-economic baseline of the area as one of the most deprived in the country, with the population mainly employed in agriculture, fishing and public administration and with a higher-than-average unemployment rate. The area also lacks infrastructure and public services such as electricity, and access to heating and cooling during the year therefore impacting on livelihoods.

Impacts of the Project on the socioeconomic conditions of the area of influence are expected to be primarily positive, leading to the sourcing of some construction materials and some personnel from the Akkar region and to indirect business opportunities generated in the hospitality sector. The Project will also increase the provision of electricity (energy access) at national and possibly at local level.

The promoter has put a substantial effort in minimizing impacts on the population and balancing the benefits of the project equally among the municipalities and the families directly impacted by the project. During its monitoring, the Bank will ensure this is adequately reflected in the ESMPs.

The promoter is also devising an impact-based compensation mechanism for the landowners within the direct area of influence (DAOI).

More recently, and based on stakeholder engagement activities conducted in September 2019, there are indications that there is organised opposition to the plant of Sustainable Akkar, represented by elected members at the Head of the Union of Municipalities of Jabal Akroum and of the local municipalities of Kfartoun and Sahle.

There has been an increase in inter-community disputes, as well as deteriorating relations with the project company due to project-related factors (lack of information, individual agreements with specific landowners causing inter-family conflict, alleged intimidation by police/security forces, etc).

Additionally, this project is being developed in a complex social context that is characterized by the following historical factors: isolated position of the region, previous Syrian occupation, ex-military community members and customary ownership of small firearms, a fend-for-yourself attitude and inter community disputes on boundary.

In order to address this aspect, the promoter (through a specialised international social consultant) has been conducting focused engagement meetings with the opposing parties. The promoter is also devising a 5-years Community Benefit Sharing Plan, investing in the local communities on the basis of both the results of a community needs assessment and a stakeholders' survey. Additionally, the promoter will appoint a Conflict Resolution specialist; the specialist will conduct a conflict risk assessment, prepare and implement a Conflict Resolution Plan, review related aspects and deliverables (Land Acquisition, Security Management Plan, and Community Benefit Sharing Plan), and design solid monitoring procedures so as to ensure coordination, providing guidelines on the monitoring of security and grievances during implementation.

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Given these local tensions and the conflict situation that has recently arisen, the Bank will require promoter to demonstrate Broad Community Support as a condition of signature. Additionally, the Bank will need to review to its satisfaction the following documents: the Community Benefit Sharing Plan, the Local Hiring & Procurement Plan, the Conflict Resolution Plan, the Security Management Plan, the Stakeholder Engagement Plan, the Community Health & Safety Plan, the Social Impact Assessment (SIA) with its Livelihood Restoration Plan and the proposed tailored compensation mechanism. The Bank will also require the provision of 6-monthly monitoring reports on the social aspects connected with the project, and will conduct yearly monitoring missions to site to assess environmental and social compliance.

Other social impacts identified are assessed as low and limited to traffic and influx of workers on the project site.

Involuntary Resettlement and land acquisition

The project will not generate any physical involuntary resettlement.

The project entails a permanent loss of access to 28 ha of land (~14 ha in SA and ~14 ha in LWP). Of these, ~26 ha have been leased for the project for 28 years and ~2 ha have been permanently acquired for the construction of the plant substation and the wind farm operation building. As no formal land survey existed in the project area, property claims have been ascertained through a specific land acknowledgement process (Ilm w Khabar) providing each parcel with a property document duly signed in presence of the local administrative and police authority.

The land lease and acquisition process is ongoing, with no dispute being recorded so far on the level of compensation by landowners whose land will host the main plant equipment (i.e. turbines and substations). A boundary dispute between the municipalities of Andaket, Kfartoun and Sahle is claimed by the opposition, which mainly involves landowners of the parcels next to those leased, as they foresee other impacts, such as noise, shadow flicker, restrictions on building and expanding settlements, etc. The appointed conflict resolution specialist will review the land acquisition process in light of the claims made by the opposition and will integrate findings and, if needed, mitigation measures in the Conflict Resolution Plan. The Bank will require the finalisation of the land acquisition process as a condition to signature and the development of a land use/ownership map for the project area of influence as a project undertaking.

Project construction will also entail a temporary loss of access to some recreational hunting tracks and to ~0.8 sq km of grazing areas (or ~9% of the total available grazing area for the two sites). Whilst impacts have been assessed as low, the Bank will verify that potential economic displacement is adequately investigated and addressed, including assessment of levels of usage of lands and natural resources as well as quality and distance of the alternatives. The Bank will review to its satisfaction the Livelihood Restoration Plan as a condition to first disbursement.

Rights and Interests of vulnerable groups

The current ESIA describes the socio-economic baseline of the area as one of the most deprived in the country, with the population mainly employed in agriculture, fishing and public

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administration (armed forces) and with a higher-than-average unemployment rate. The area also lacks infrastructure and public services such as electricity, impacting livelihoods and access to heating and cooling during the year.

According to the information collected by the Bank, the region of Akkar and North Lebanon is home to ~335,000 refugees (~26% of the refugee population present in Lebanon and ~30% of the total population in the region. According to a study commissioned by the Bank, the 6 municipalities immediately around the project site (Jabal Akroum, Aandqet, Fneidek, Qoubaiyat, Rweimeh and Karm Shbat) host ~8000 refugees on a total population of ~50,000 (16%). Within these municipalities, refugees are not hosted in camps but rather in private houses (rented accommodation). No major social incidents or clashes have been reported in the last four years.

The current ESIA's state that impacts to vulnerable groups - including women, refugees, the elderly and informal settlers - are considered to be low, limited to the temporary impact of transport activities and mitigated by the advance notification of transport schedules and measures. However, the Lenders' review highlighted that socio-economic characterisation should be more thorough, extending its profiling to all the communities involved and focusing on vulnerable groups with specific analysis, impact assessment and mitigation/communication measures. The ESAP and SIA, required by the Lenders, are meant to address these gaps and will be reviewed by the Bank as part of the ESMS review.

In its review of the final E&S documentation and systems (ESMS, ESIA's, ESMP's, and SEP), the Bank will verify that the impacts on vulnerable groups are adequately identified and mitigated and that these groups are included in the Community Benefit Sharing Plan.

Labour Standards

As a member of the ILO (since 1948), Lebanon is obliged to respect its fundamental rights and has ratified several ILO conventions². At a national level, private sector employment, is mainly regulated by the Lebanese Labour Law (1946), the Social Security Law (1963) and their related decrees.

The promoter has developed HR, Recruitment and Selection Policies, which respect equal opportunity and non-discrimination principles. The policies also include labour and working conditions requirements, institute a Labour Council and commit to comply with national employment and labour laws.

Labour and working condition requirements have been also included in the procurement documentation and a Supplier Selection Procedure has been established to select suppliers based on their past performance and reputation.

The Bank will further monitor to its satisfaction the policies, focusing on the implementation of a grievance mechanism and register for employees and contractors, of specific policies (on retrenchment, vulnerable categories of workers, protection from forced labour/child labour both internally and within the supply chain) and of compliance monitoring procedures.

Occupational and Community Health and Safety

² Including Freedom of Association and Protection of the Right to Organize, Elimination of Forced Labour and Compulsory Labour, Minimum Age for Admission to Labour and Worst Forms of Child Labour and Combating Discrimination in Employment and Occupation. Lebanon has also enshrined in its constitutions ICESCR, ICCPR and Universal Declaration of Human Rights and has ratified several international texts and charters providing basic social protection.

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An Occupational Health and Safety (H&S) risk register has been provided in each ESIA and it is integrated into the ESMS.

Analysis of H&S impacts within the ESIA included traffic and influx of workers. Analysis and mitigation of H&S impacts from traffic are considered adequate. Impacts related to the influx of workers are expected to be low, as most local workers are expected to commute from their villages of residence, however most of the skilled workforce will be accommodated in the communities in the vicinity of the project site, which could impact community H&S and generate social tensions. In its review of the ESMPs, the Bank will verify that H&S impacts of the influx of workers (including workers accommodation, labour and working conditions and workforce management, are appropriately addressed). The promoter is required to ensure adequate related information, training and compliance monitoring are programmed within the ESMS.

According to the ESIA, the promoter will also provide an appropriate Health, Safety and Security Management System (HSSMS), as part of its ESMS, and will require correspondent and coordinated management systems from the EPC contractor and operator prior to implementation start. Plans and procedures to protect local communities will include notices, signs and barriers to prevent unauthorised access to site. The Bank will assess to its satisfaction the promoter HSSMS, focusing on system robustness and thoroughness, presence of appropriate training and compliance monitoring.

Security Management Plans (SMPs) for each site will also have to be developed, as part of the ESMPs, in line with Voluntary Principles of Security and Human Rights, including security risk assessment, training records for the security personnel and complaint tracker.

The EPC contractor will have the ultimate responsibility of the project emergency preparedness and response. This will include Emergency Management Systems (EMSs, part of the ESMPs), which will be reviewed to the Bank satisfaction.

Public Consultation and Stakeholder Engagement

Public participation and engagement is a pre-requisite of the national EIA regulations in Lebanon, as well as of the international standards followed by the Project.

According to the ESIA, several public consultations initiatives have been undertaken, involving national ministries, family and local institutional leadership, local NGOs and members of the local public. Initiatives so far undertaken include three different public meetings (scoping, initial and final public disclosure), a door-to-door survey, two focus groups meetings, four visits to a wind farm in Turkey for members of the local public and a community dinner.

The promoter has also developed a Stakeholder Engagement Plan (SEP) as part of the ESIA and has conducted several stakeholder engagement activities.

However, both public consultations and SEP did not manage to include all the villages of the project area and all the vulnerable groups and the subjects at risk of economic displacement (shepherds). The Bank will further review the final ESIA and SEP to ensure further public consultations and engagement initiatives including these groups are programmed and documented through an engagement log. These initiatives should ideally utilise the modality of focus-group facilitated by local NGOs and include discussions on the result of the ESIA.

The project companies have appointed an External Relations Manager to implement the SEPs. Additionally, the project will employ three members of the local communities as

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community relations officers, based in a Community Relation Office (CRO) to be established in one of the municipalities (Kfartoum). The officers will conduct open monthly meetings with the citizenship.

Communication activities included the development of informational material, internet and social media pages and a 3D model of the project (to be located in the CRO). Additionally, copy of the ESIA's non-technical summaries will be available in the CRO and in each municipal office within the DAOI.

The promoter has developed, for each plant, a public grievance mechanism to an international standard: this allows for several lodging mechanisms and includes a grievance register and procedures for resolution and monitoring actions, which is considered appropriate.

Further stakeholder engagement initiatives are being and will be undertaken to address the opposition to the project and in the context of the related conflict resolution strategy.

The Bank will further review the SEP to ensure it reflects strategy, timeline and responsibilities relative to community relations and communication strategies. The review will also assess coordination of the SEP with the overall ESMS.

Conclusions and Recommendations

With the support currently provided by the appointed international E&S consultants the promoter E&S capacity to implement the project in line with Bank's E&S standards is considered to be adequate.

The Bank will require, as conditions of signature:

- (i) the completion of the final versions of ESMS (including a list of sub-documents), ESIA's and ESAP to the satisfaction of the lenders and of their advisors
- (ii) the satisfactory review of the promoter HR, Recruitment and Selection Policies by the lenders
- (iii) the achievement of the environmental permitting and full land acquisition
- (iv) for the promoter to demonstrate Broad Community Support, to the satisfaction of the Bank
- (v) the satisfactory review of the Conflict Resolution Plan and the Security Management Plan.

The Bank will require, as conditions to first disbursement:

- (vi) the completion of the additional biodiversity surveys required by the lenders and part of the ESIA's
- (vii) the completion of the final version of the SEP, and of the ESMPs (each with its subdocuments) to the satisfaction of the lenders and of their advisors
- (viii) the satisfactory review of the Local Hiring and Procurement Plan, the Community Benefit Sharing Plan and of the Community Health & Safety Plan.
- (ix) the completion of the proposed tailored compensation mechanism and of the Social Impact Assessment (SIA) including the Livelihood Restoration Plan, to the satisfaction of the Lenders and of their advisors.

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Additionally, the promoter undertakes to:

- (x) update and maintain ESMPs and SEP, incorporating project changes and permits and ministerial requirements as soon as available
- (xi) develop a land use/ownership map for the project area of influence
- (xii) develop and annually report on a Corporate Social Responsibility (CSR) plan
- (xiii) submit a 6-monthly monitoring report on the social aspects connected with the project
- (xiv) facilitate to their best effort, annual monitoring visits by the Bank to assess environmental and social compliance.

With the implementation of the ESAP and the above-mentioned conditions in place, the project is acceptable for EIB financing in E&S terms.