

Environmental and Social Data Sheet

Overview

Project Name: SCA ÖSTRAND MILL EXPANSION AND FORESTRY
Project Number: 2016-0146
Country: Sweden
Project Description: The operation consists in: (i) the finance of selected renewable energy, energy efficiency and environmental protection measures within an investment program in Sweden consisting of the upgrade of a pulp mill in Timrå and (ii) the replant and regeneration of about 68,000 ha of forest, the construction of 4,250 km of forest roads and an upgrade of 5 forest terminals.

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 forestry project component (ii) includes investments for safeguarding and improving the productivity of the promoter's local forest assets and for increasing the sustainable wood mobilization from its own resources. This is ensured through active sustainable forest management practices such as replanting, tending, thinning operations and upgrading of forest road networks. The implementation of these operations does not fall under the provisions of the Annex I or Annex II of the EIA Directive, but follows the national procedures as regulated in the Forestry Act and in the Environmental Code (<http://www.skogsstyrelsen.se/en/forestry/The-Forestry-Act/Skogens-paragrafer/>) as well as Directive 1999/105/EC that deals with the marketing of forest reproductive material between member states within the European Union. In accordance with these regulations, the forest area owned by SCA cannot be expanded, only forests above a certain age can be felled and after a final felling, the Promoter has to make sure that reforestation of the area takes place within three years. The most common way of doing this is by planting new trees, but can also be done by natural regeneration. Apart from logging permits, no specific permits are required in Sweden for building and upgrading forest roads. However, the promoter normally consults with authorities on a voluntary basis before starting its forest road building projects.

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100 000 tons CO₂e/year absolute (gross) or 20 000 tons CO₂e/year relative (net) – both increases and savings.

Luxembourg, 2 June 2017

The promoter's forest management standards comply with internationally accredited forest certification systems for the entire chain of custody.

For the modernization of the pulp mill, the project falls under the scope of Annex II of EIA Directive 2011/92/EU (modification of an industrial facility for the production of pulp). The mill is also subject to Industrial Emissions Directive (IED) 2010/75/EU and the Best Available Techniques Reference Document (BREF), which describes the best possible technology and the reference values for different pulp and paper industry parameters.

A full ESIA was implemented and the procedure included a public consultation as required by the underlying regulations. The ESIA study was submitted to the authorities at 15 October 2014 and the environmental permit was issued on 15 November 2015.

The existing plant, operational since 1932, has continuously undergone adaptations and modernization cycles to incorporate the best available technology at the time. The mill is almost self-sufficient in terms of energy and, thanks to an upgrade in the lime kiln facilities to enable the use of wood pellets in 2010, operates today with 93% green energy produced on the site. As a result of continuous environmental upgrading, Östrand pulp mill ranked highest in the WWF – World Wide Fund for Nature – Environmental Paper Company Index (EPCI) in 2015. EPCI provides a framework for companies to voluntarily report their environmental performance data, such as energy consumption, environmental figures, wood handling processes, etc.

The modernization plan will be implemented according to current BAT demands. The project will incorporate advanced process technology to bring about substantial energy and resource efficiency gains in terms of reduced energy and water consumption per tonne of pulp produced. These energy and resource efficiency gains are reached through the increase of the mill's capacity. In addition, the modernisation measures will lead to a substantial increase in the surplus of green power generated at the mill and sold to the national grid.

The ESIA has identified 4 nature conservation areas within a 10-km radius of the project site: Nature reserve Indalsälven, Natura 2000 reserve Långharsholmen, Natura 2000 reserve Stornäset and Natura 2000 reserve Smedsgården. The mill modernization project will be within the existing industrial facilities. Therefore, it will only have a negligible visual effect on the landscape and likely no negative environmental impact on nature conservation sites. This has been confirmed in the ESIA.

EIB Carbon Footprint Exercise

Forests act as natural carbon sinks by sequestering substantial amounts of CO₂ in the soil and growing trees. At the mill, the modernisation project will install advanced process technologies resulting in substantial energy efficiency gains at different critical process parts. The mill also deploys a wide range of renewable resources (bark and process by-products) for its energy generation, including both power and heat. As a result, the mill will be energy self-sufficient and able to generate significant additional power with the surplus steam produced at the plant. Therefore, the modernised pulp mill will be able to export surplus (green) power generated at the plant (650 TWh/year), while, at the same time, reducing the use of fossil fuels with increasing production capacity:

- With the project, the estimated annual fossil GHG sequestration due to the reforestation and forest tending program is expected to be 44.2 kt of CO₂ equivalent per year. Over the past 50 years, the standing volume of SCA's forests increased by about 50%. The gross annual mean increment (MAI) amounts about 9.5m m³ or

Luxembourg, 2 June 2017

4.8 m³/ha/year for the productive forests (2 million ha). The net growth, that is gross increment discounting the felling and natural losses, is about 3m m³ per year. Young forests account for a large amount of the growth. Professional forest management practices ensure sustainable growth of forests and the rate of felling is expected to increase over the coming decades with the maturing of forests and reaching of harvestable age.

- The estimated annual fossil GHG emissions of the project mill in a standard year of operation are 15.9 kt of CO₂ equivalent. Due to the efficient use of biomass as energy sources for the pulping process and power generation, fossil GHG emissions are slightly reduced, even if the project will significantly increase the mill's production capacity. The main source of emissions is the lime (CaCO₃) used to replenish the chemicals of the process. This will be partially substituted by Calcium oxide (CaO), which has a better GHG profile than lime. The supply of green power to the national grid will further bring substantial GHG savings. Following the EIB Carbon Footprint Methodology, these savings are estimated at 238.8 kt CO₂ equivalents. Calculations are based on the International Financial Institutions (IFI) Technical Working Group (TWG)² common approach (November 2015) of accounting for net GHG emissions for investments bringing reductions in energy intensity through the rehabilitating, retrofitting and/or replacing the existing by more efficient technologies at the recipient facility modernisation project³. Following this methodology, the calculation focuses on the pulp mill complex at the project site in the cases of without and with the investment. The baseline scenario is a combination of the emissions from the existing pulp mill during its estimated residual economic life and those due to a best in kind greenfield competitor BAT mill for the additional capacity. The baseline for the additional power exported to the grid is defined in line with the standard EIB GHG footprint methodology.
- For the purposes of the annual Carbon Footprint accounting concerning the EIB project, the emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project investment cost.

Social Assessment, where applicable

N/A

Public Consultation and Stakeholder Engagement

The ESIA was submitted to the authorities on 15 October 2014 after preliminary hearing sessions in June 2014. A formal environmental hearing was conducted with broad participation on 26-27 August 2015 and the environmental permit was issued on 15 November 2015 with a binding judgment on Sulphur and NOx-level emissions at the lower range to the BAT-BREF and the undertaking to comply with the maximum noise levels (45-55 db(A)) within a year from commissioning the new pulp mill. Issues raised during the consultation process have been recorded in the ESIA report document. The concerns related to issues such as surface water and air contamination, rationalisation of transport and noise abatement and were addressed during the consultation process.

² The TWG for this methodology includes technical specialists from ADB, AfDB, AFD, EBRD, EIB, GEF, GIB, NIB, NEFCO, IDB, IFC, and WB, with support from the UNFCCC secretariat; to be widened to include more IFIs as work progresses. This note will be reviewed and updated periodically by the IFIs.

³ 'Facility' is used to denote the operations, site, equipment, etc., that is the subject of the IFI-financed project.

Luxembourg, 2 June 2017

Other Environmental and Social Aspects

The promoter is one of the largest suppliers of forest-based solid biofuel, the second largest saw mill company and the largest private forest owner in Sweden. Promoter's forests absorb each year more CO₂ than the total discharged from its entire industrial activity.

SCA is certified under the chain of custody standards FSC and PEFC, as well as FSC Controlled Wood. This requires an annual external review of work methods for the procurement and sale of certified and uncertified wood raw material. For imported volumes of wood raw material from countries outside the EU, the Promoter applies the EU Timber Regulation (EUTR 995/2010).

Forest conservation for SCA own timberland assets goes beyond fulfilling certification standards. The promoter has put in place a program that integrates forest management and environmental considerations. Single trees, groups of trees and different types of buffer zones and small biotopes (e.g. waterlogged woodlands, ravines, rock outcrop areas and rocky slopes) are retained. In this way, about 4% of the timber volume, corresponding to 7% of the area, is left standing within the cutting areas. Furthermore, environmentally compatible management methods, detailed knowledge of the production conditions and conservation aspects, ecological landscape planning and cooperation with public authorities with regard to special protection under the Swedish Nature Conservation Act are applied.

SCA has in place Environmental Management System (EMS) certified ISO 14001, Energy Management System (ISO 50001), Quality Management System (ISO 9001) and Occupational Health and Safety Management System (OHSAS 18001). It complies with the SEVESO requirements and the REACH Directives for the storage and transport of chemicals. Detailed emergency preparedness plans as well as the infrastructure (as required under the SEVESO Directive) are in place. The promoter produces also wind energy, Crude Tall Oil (CTO) for biofuel production, green electricity and municipal district heating from its Östrand pulp mill.

Conclusions and Recommendations

Based on the ESIA, the project is considered acceptable for financing by the Bank from environmental and social perspectives subject to observance of the ESIA conditions together with the following undertaking conditions that are proposed to be included in the financial contract:

- The integral operation permit according to the Industrial Emissions Directive will be issued once the construction of the plant is completed. Its timely submission to the EIB will be included as an undertaking in the finance contract.
- The promoter shall provide a proof of compliance with the final decision of the Swedish Environmental Protection Agency in respect of Sulphur and NO_x emission levels.
- Within one year from startup of the new fiber line, the promoter shall provide proof of compliance with the maximum noise levels as agreed by the environmental authorities.

Concerning the pulp wood sourcing, the promoter shall comply with the following continuous project undertakings:

Luxembourg, 2 June 2017

- Pulp wood and forest biomass shall be sourced from forests that are certified by internationally accredited forest certification systems, such as FSC and PEFC. The sourcing areas that have not been certified yet, shall comply with the same standards so as to be certifiable.
- The project shall exclude sourcing of round wood and forest biomass from areas with natural forest conversion and logging of primary moist and tropical forests.
- Sourcing of biomass shall comply with the EU Forest Law Enforcement Governance and Trade (FLEGT) and EU Timber Regulation (EUTR 995/2010), whenever applicable.