Environmental and Social Data Sheet

Overview

Project Name:	Omnicane Carbon Burn-Out
Project Number:	2015-0053
Country:	Mauritius
Project Description:	Installation and operation of a carbon burn-out (CBO) facility to convert coal fly and bottom ashes into additives for Portland cement. This is an innovative waste management project to address the problem of ash disposal in Mauritius.

EIA required: no

Project included in Carbon Footprint Exercise[1]: no

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

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

Overall, the proposed project will have a positive environmental impact in terms of avoiding disposal of ashes (reduction of risk of ground/surface water contamination), replacement of blast furnace slag as an additive to Portland cement, and decrease in GHG emissions.

The expected negative impacts are: increased traffic in the vicinity of the sugar complex, gas emissions and particulate matter emissions during implementation and operation. Mitigation measures include the selection of appropriate equipment, i.e. capable of meeting the environmental standards required by the Competent Authority.

The project will be implemented in an existing industrial area far from any site of nature conservation or residential areas.

The CBO does not fall under the Mauritian legislation in terms of obligatory EIA. However, an EIA was carried out in 2013. This included the CBO and a 3.8 MW combined heat and power plant (CHP) – which required an EIA. The EIA permit has already been granted. The Promoter applied for a building permit in April 2015 and expects to receive it in May 2015.

The following conditions need to be satisfied by the Promoter:

- The Promoter shall provide documentary evidence that all relevant conditions to start construction requested by the Environmental Competent Authority have been met. A copy of all building permits shall be provided to the Bank.
- The Promoter shall provide documentary evidence that all relevant EIA requirements demanded by the Environmental Competent Authority have been met.

Taking into account the above conditions as well as the capacity of the Promoter and the systems in place to manage environmental and social impacts and issues, the project is acceptable for Bank's financing in environmental and social terms.

[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 CO_2e/year absolute (gross) or 20,000 tons CO_2e/year relative (net) – both increases and savings.

Environmental and Social Assessment

Environmental Assessment

In May 2013, an EIA for the CBO and the CHP plant was carried out according to the Environmental Protection Act (2002) as amended (Act No. 6 of 2008), which includes an air emission standard, effluent discharge standards and noise control. The EIA permit was granted.

The main impacts during implementation are related to the construction works (e.g. excavation), production of waste and effluents, and noise. During operation, the impact will consist of dust and gas pollutant emissions, noise, raw material spills and solid waste generation. Stack emission from the CBO facility will be monitored using an automatic and continuous system, and supervised by the University of Mauritius every three months. Environmental air quality will be checked twice a year at five monitoring stations around the sugar complex. Storage silos for untreated and treated ash will be equipped with bag type dust filters. In particular, untreated fly ashes will be stored in fully enclosed vertical silos equipped with bag filters to prevent emissions during loading/unloading. Noise level will be monitored twice a year by an independent organisation.

The project will reduce the risk of environmental contamination from disposal of coal ashes as back fill material in sugar cane fields which is the current practice, create employment (around ten jobs), replace the import of bottom blast furnace slag from overseas (currently used for blending) and reduce carbon emissions.

Although the project is relatively small and does not fall under the EIB's Carbon Footprint exercise, the project should show a savings in emissions of 3,100 tonnes equivalent of CO_2. This comes from the steam production which will reduce the consumption of coal in adjacent CHP plants.

Social Assessment, where applicable

The Promoter is accredited to meet the standards ISO 9001 and ISO 14001 and the CBO will be organized under the same procedure. The project will create around ten full time jobs.

Public Consultation and Stakeholder Engagement, where required

The sugar cluster is located approximately 1 km from the town of l'Escalier. Regular meetings are held between the promoter and members of the local community. The project was presented in March 2013. The notes of the meeting are attached to the EIA. At time of appraisal no complaints were registered.

Other Environmental and Social Aspects

The proposed project will have minimal or no impacts in terms of visual and aesthetics of the site, potable water supply, telecommunications, generation of waste water (process and domestic type) or solid waste collection.

Nowadays, coal fly and bottom ashes in Mauritius are disposed in sugar cane fields or used as bag fill material and aggregates for estate roads. This method of disposal raises public concerns as regards the risk of water contamination through leaching of heavy metal present in the ashes. In addition, space availability is decreasing and, therefore, the method is not sustainable in the long term.

Leachability tests were carried out on treated fly ash and bed ash, cement and cement mix in order to predict the short and long term potential for pollutant release from coal ashes. Some amounts of treated ash conformed to French acceptance criteria for storage of inert materials.

The summary of the EIA study has been published at:
http://environment.govmu.org/English/eia/Documents/Reports/carbonburnout/summary.pdf