

Environmental and Social Data Sheet

Overview

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| Project Name: | <i>GREAT NORTH ROAD (T2) UPGRADE</i> |
| Project Number: | <i>2015-0219</i> |
| Country: | <i>Zambia</i> |
| Project Description: | <i>Upgrade of a 372 km section of Great North Road (T2) between Mpika and Nakonde on the border to Tanzania.</i> |
| EIA required: | yes |
| Project included in Carbon Footprint Exercise ¹ : | yes |

Environmental and Social Assessment

The Project is the upgrade of a 372 km section of Great North Road (T2) between Mpika and Nakonde on the border to Tanzania, consisting of the rehabilitation of pavement overlay or full depth repair, replacement of some structures, expansion of drainage and widening of the road. The road will remain a single carriageway.

The scope and nature of works means the Project is classified Category 1 under the Zambian Environmental Management Act (2011) requiring an Environmental and Social Impact Assessment (ESIA) to be developed. If located within the EU, the project would fall under Annex II of the EIA Directive 2011/92/EU and would likely require an environmental impact assessment based on the potential for significant effects on the environment.

An Environmental and Social Impact Statement (ESIS) Report has been developed, including public consultations and accompanying management plans of a Resettlement Action Plan (RAP), Stakeholder Engagement Plan (SEP) and an Environmental and Social Management Plan (ESMP).

Approval of the ESIS by the Zambian Environmental Management Agency (ZEMA) will be required before the start of works.

Environmental Assessment

- Environmental impacts during construction and operation include, among others soil erosion and sediment control; vegetation loss; perturbation to wildlife; temporary modification of water bodies; fugitive dust and other emissions (e.g. from vehicle traffic); increased noise levels from heavy equipment and truck traffic; construction site waste generation and potential hazardous materials and minor oil spills. The residual impact after compensatory and mitigating measures is expected to be limited.
- Ecologically sensitive areas in the road corridor include the Miombo woodlands, hill pastures, riparian forests, swamps and the Bwinjimfumu National Forest. The baseline assessment has not indicated the presence of threatened species in the area of the road corridor and overall the magnitude of loss of habitat is considered low with the implementation of mitigation and compensatory measures. The nearest nature conservation area is the Shiwa Ngandu area, which will not be impacted by the project.

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.

- An Environmental and Social Management Plan (ESMP) has been developed to implement appropriate mitigation measures identified in the EIA.
- Improvements to road safety should also result in a reduction of potential pollution incidents from road accidents.

Climate Adaptation

- A climate risk screening was undertaken for the Project using scientific information on the current climate and related hazards together with projected changes for the future where available. The overall climate risk screening rating was “medium risk”, however (i) wild fire; and (ii) flooding were identified as “high risks”. The Project design was reviewed in light of these risks which were appropriately reflected and costed. Measures recommended included using steel instead of timber for guard rails and traffic signs to mitigate risks from wild fire, and the inclusion of additional culverts increasing the run off capacity by 30% to mitigate flooding.

EIB Carbon Footprint Exercise

The project is included on the following basis:

- Estimated annual third party greenhouse emissions (vehicular use, from existing and generated demand) from the use of the project in a standard year of operation:
 - Forecast absolute (gross) emissions are 141 000 tonnes of CO₂ equivalent per year; and
 - Forecast emissions increase is 7 000 tonnes of CO₂ equivalent per year.
 - The project boundaries are:
 - “Baseline case” – the existing road of 371.5 km between Mpika and Chinsali.
 - “With project case” – the upgraded road of 371.5 km between Mpika and Chinsali.
- The baseline is the forecast third party emissions, in the absence of the project, from the existing network. The forecasts reflect the Services’ assumptions on traffic, traffic growth, speed flow, infrastructure capacity and fuel consumption. The absolute emissions forecast include both the existing and additional network.
- For the annual accounting purposes of EIB’s 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

- Social impacts during construction and operation include, among others, involuntary economic and physical resettlement; perturbation to public from civil works and earth moving; accident risks to communities from construction-related traffic and disruptions to normal traffic patterns are expected; generation of employment; potential in-migration; and beneficial impacts to local economy.
- The widening of the road and improvements to road safety will result in a reduced risk of accidents, including those with pedestrians.
- Involuntary Resettlement for the Great North Road Rehabilitation Project will be of a significant scale and impact. The ROW has been established as 50m on each side of the project axis, with an area offset in urban areas of 37m on each side of the road. Resettlement impacts have been mitigated where possible including through the application of minimal route deviation from the existing road, thereby minimising land

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acquisition. Nevertheless the application of this ROW and the widening of the road will result in an estimated 770 households being affected by the Project, equivalent to approximately 4950 Project Affected People. The majority of these households are impacted through the economic resettlement of their shops or business interests, with a lesser number being impacted through physical resettlement.

- The promoter has prepared a Resettlement Action Plan (RAP) to manage involuntary resettlement. The RAP satisfies the promoter's RDA and ZEMA's requirements and is satisfactory to the Bank. The RAP will be implemented by RDA's Environmental and Social Management Unit (ESMU) in coordination with the office of the District Commissioner (DC), and a Resettlement Working Group (RWG) made up of stakeholders and PAPs.
- RDA has not previously implemented a resettlement programme of this magnitude, a challenge that is recognised and supported through the implementation of an independent environmental and social consultant to oversee the implementation of the Resettlement Action Plan. In addition RDA will retain an independent valuer and survey companies.
- Labour Standards and Occupational and Community Health and Safety measures have been identified and proposed in the ESMP.
- The Project has been designed in consideration of gender aspects, with studies demonstrating that women use the road for more diverse needs and destinations, which include visiting health centres, educational facilities, markets, and relatives. In order to better facilitate these uses, wider sealed shoulders for safety and facilitation of non-motorized transport such as walking, bicycles and carts have been provided.
- The Environmental and Social Impact Assessment has been reviewed through a gender lens and measures proposed to protect and positively impact, including identification of potential vulnerable groups by virtue of gender, ensuring that women fully participated in consultation, that involuntary resettlement practices do not adversely impact women, that employment practices and remuneration are gender neutral, and that the workplace is gender friendly.

Public Consultation and Stakeholder Engagement

- Zambian legislation, Environmental Management Act (2011), requires public participation of projects that require an EIA. RDA as part of the EIA process has conducted stakeholder consultations along the route and a Stakeholder Engagement Plan (SEP).
- Public consultations on the project were held during 2016. The EIA work and results were explained. The collection of information on the properties affected on either side of the road was reported.
- Active stakeholder engagement is required throughout the duration of the project as detailed in the Stakeholder Engagement Plan.

Other Environmental and Social Aspects

- Construction contractors will be required, as a condition of their contracts with RDA, to implement and comply with the ESMP, including preparing management plans consistent with the specific management plans provided in the ESMP. RDA will rely on Supervising Engineers for Project environmental and social supervision of RDA contractors' environmental and social requirements, and RDA's Environmental and Social Management Unit (ESMU) for monitoring and reporting on environmental and social performance.

Conclusions and Recommendations

The project has limited negative environmental impacts during construction and operation. The residual impact after compensatory and mitigating measures is expected to be limited and adequately addressed in the project's management plans including the Environmental and Social Management Plan (ESMP). Subject to the fulfilment of the below-mentioned conditions, the project is acceptable for EIB financing in E&S terms.

First disbursement conditions in relation to the works components

- The Borrower shall provide evidence that it has adequate committed resources available to finance the Project, in particular for compensation, land acquisition and project implementation.
- The Borrower shall provide copies of all Environmental and Social Documents applicable to the Project Subcomponent(s) to the satisfaction of the Bank, as required pursuant to the legislation of Zambia and under the EIB Environmental and Social Standards prior to commencement of any work on the Project Subcomponent concerned, namely:
 - (aa) Environmental and Social Impact Assessment(s),
 - (bb) Resettlement Action Plan(s);
 - (cc) Environmental and Social Management Plan;
 - (dd) Stakeholder Engagement Plan; and
 - (ee) Decision Letter(s) of ZEMA,
 - (ff) A declaration by the Competent Authority that the Project is not likely to have significant effects on any sites of nature conservation importance.

Undertakings

- The Borrower agrees to have implemented the relevant measures of the Resettlement Action Plan, including payment of full compensation, prior to the commencement of civil works for each section.
- The Borrower shall retain an independent environmental and social consultant to oversee the implementation of the Resettlement Action Plan.
- The Borrower undertakes to oversee and supervise the maintenance regime applied when the civil works are completed to limit the risk of wildfire.