



Luxembourg, 14 September 2022

Environmental and Social Data Sheet

Overview

Project Name: MODERNISATION DU RESEAU ROUTIER AU TCHAD
 Project Number: 2020-0097
 Country: Chad
 Project Description: The project consists of the design, reconstruction and upgrading of some 229 km of the road corridor N'Djamena – Moundou – Koutéré (Cameroon Border).

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

The corridor N'Djamena – Moundou – Koutéré (Cameroon Border) is defined as a priority in the Consensual Master Plan for Transport in Central Africa (PDCT-AC) 2004 and is in line with Chad's National Development Plan (2017 – 2021). The project is aligned with the National Transport Strategy for the period 2011 to 2020, which focusses on road maintenance and rehabilitation as part of the strategy for improving transport conditions focusing on opening up internal and external access, aimed at boosting the country's development.

The project consists of the design, reconstruction and upgrading of some 229 km out of the 596 km of the road corridor from N'Djamena to Koutéré, on the Cameroon border as well as substantial TA support for project implementation and capacity building. The project will be implemented by the Ministry of Infrastructure (Le Ministère des Infrastructures et du Désenclavement du Tchad –MID).

The road sections reconstructed are the section linking N'Djamena and Guelendeng along 144 km, and Ham and Kelo along 85 km. The project works include the construction of a new 72 m bridge in Moulkou (40 km from Guelendeng) and the construction of four axle load control stations and six resting parking areas along the whole corridor.

The standard road platform of the road will be increased to allow consistent hard shoulders of 1.5 m each side improving road safety. The carriageway will remain at 7m (2 lanes of 3,5 m) except in the 20 first km South of N'Djamena where it will be increased to 14 m (4x3.5 m).

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.



Luxembourg, 14 September 2022

Four axle load control stations will be constructed at the following locations: Ngueli (N'Djaména), Kournari, Kélo and Koutéré and six resting areas will be constructed at the following locations: Loumia, Guelengdeng, Djoumane, Kelo, Belaba (Moundou) and Koutéré.

The project is expected to be designed and constructed in 6 years over the period of Q1 2023 to Q4 2028.

Environmental Assessment

If located within the EU, the project would fall under Annex II of Directive 2014/52/EU amending the EIA Directive 2011/92/EU and would therefore be subject to screening by the competent authority to determine whether an environmental impact assessment (EIA) was required. The project is, in any case, categorised as requiring a full EIA under applicable domestic legislation, LOI N°014/PR/98 "définissant les principes généraux de la protection de l'environnement".

An Environmental and Social Impact Assessment (ESIA) has been developed in accordance with the laws and regulations of Chad (Law N°014/PR/98 of 17 August 1998, and Decree No 630/PR/PM/MEERH/2010 of 4 August 2010 regulating environmental impact assessments in Chad), and in accordance with the Environmental and Social Standards of the European Investment Bank (EIB, 2018) and the requirements of the World Bank's Safeguards Policies. The EIA scope has been developed to include the whole road corridor and submitted to the Competent Authority (Le Haut Comité National pour l' Environnement) for approval.

The Ministry of Environment issued the Environmental permit N°056/PCMT/PMT/MEPDD/SG/DGSEDD/DEELCPN/2021 for the project on 7 December 2021. The ESIA decision has been published since 9 December 2022 in the website of the Ministère des Infrastructures et du Désenclavement.

Impacts and mitigation

The works relate to the reconstruction of an existing road and the ESIA has not identified impacts that would cause significant adverse effects if appropriate mitigation measures are put in place.

The project is expected to improve the transport conditions, including service level, road safety and climate resilience of a key regional transport corridor.

The following potential negative impacts have been identified along with mitigation measures:

- the loss of flora (about 2670 trees), mitigated through the implementation of a reforestation plan in close cooperation with the environmental services to compensate for the possible destruction of plant species;
- water and soil pollution by solid and liquid waste from construction sites (medium impact), which will be mitigated through the implementation of an appropriate Waste Management Plan;
- air pollution during the construction process, mitigated through the implementation of an Air Pollution Plan and measures to limit air pollution;
- the disruption of the mobility of goods and people along the route, mitigated through the implementation of an Environmental and Social Management Plan (ESMP);



Luxembourg, 14 September 2022

- limited loss of private and public property including arable land with a risk of crop destruction (if the work is carried out in the rainy season) and therefore an impact on income. This will be mitigated through the implementation of a Reinstallation Action Plan/Resettlement Action Plan (PAR);
- disruption/obstruction of traffic lanes during the development of the route.

Biodiversity

The existing road (section N'Djamena–Guelengdeng) crosses the protected areas of the Mandalia Reserve and the Ramsar Zone of the Logone Floodplains.

The Mandalia wildlife reserve (138 000 ha) was classified in 1967 for the protection of elephants and giraffes (Decree 231/PR/EFPC/PNR of 7 October 1967, amended by Decree 199/PR/EFPC/PNR of 24 June 1969). A Planning and Management Plan was approved in 2011 but apparently has not been implemented. According to the ESIA, giraffe and elephant are no longer present in this reserve, along with most of the wildlife, and the quality of the reserve has been severely degraded especially by the urbanisation of the city of N'Djaména.

The Logone Floodplains reserve is located in the northern part of the Ramsar site of 'Logone floodplains and Toupouri depression', which covers 2 978 900 ha. This plain is home, although in limited numbers, to giraffes, ostriches, West-African buffalo and hippopotamus (IUCN Red List). Reptiles such as *Varanus niloticus*, *Crocodylus niloticus*, *Pelomedusa* sp, *Pelusos* sp. are also found.

The plain is also home to a rich avifauna which is mainly composed of Afro-Ethiopian species: the Widow Dendrocygna, the Fox Dendrocygna (*Dendrocygna bicolor*), the Crowned Crane, the Pelican (*Pelecanus rufescens*), the Gambian Goose, the Helmeted Duck (*Sarkidiornis melanotos*), and fish species such as *Clarias* sp, *Bagrus bayad*, *Synodontys* sp, *Gymnachus niloticus*, *Malapterurus electricus*, *Schilbe* sp, *Hydrocynus forskalii*, *Alestes* sp, *Labeo* sp, *Oreochromis niloticus*, *Citarinus* sp, *Petrocephalus* sp, *Momyrus* sp, *Labeo lereensis*, *Arius gigas*, *Synodontis ocellifer*, *Synodontis violaceus*.

Although no significant adverse impacts are foreseen due to the nature of the works, the existing status of the road, and the already degraded nature of these protected sites in the vicinity of the road, the ESIA establishes that a Biodiversity Management Plan will be developed specifically for the management of potential impacts to these sensitive sites.

Climate Change

Chad faces considerable risk from climate change and, in particular, from greater variance in rainfall which may impact the project in the form of flooding and runoff episodes. Chad has a National Strategy for Combating Climate Change² (SNLCC), 2017, which aims to provide Chad with the means to adapt to climate change and to participate in the global effort to mitigate global warming.

The project's main risks due to climate change have been identified as the risk of extreme precipitation and flooding. A climate risk vulnerability assessment has been commissioned and based on this assessment adequate mitigation measures will be determined and included to the extent feasible in the project's design.

² [Cha186306.pdf \(fao.org\)](#)



Luxembourg, 14 September 2022

Paris Alignment

The project has been assessed by the Bank's services for Paris Alignment in accordance with the policies set out in the Climate Bank Roadmap (CBR). This is considered to be a rehabilitation project as only the entrance/exit of the road into the capital foresees an extra lane (first 20 km). Rehabilitation of an existing strategic corridor is supported under EIB's criteria of the CBR's Paris Alignment Framework and is not subject to the adapted economic test in place for capacity expansion projects.

The project will be aligned with the climate resilience goal as the climate risk of the project should be assessed as low after implementation of the findings of the Climate Risk Vulnerability Assessment (CRVA) into the final design.

EIB Carbon Footprint Exercise

The project is included in the Carbon Footprint exercise on the following basis:

- Estimated annual emissions of project in a standard year of operation:
 - Forecast absolute (gross) emissions are 39 000 tonnes of CO₂ equivalent per year;
 - Forecast emission created are 2 000 tonnes of CO₂ equivalent per year.
- The project boundaries are the road non-continuous sections from N'Djamena to Guelengdeng (144 km); from Ham to Ere (85 km) and the Molkou bridge (0.072 km) located in the road section that links Guelengdeng with Bongor.

The baseline is the forecast third party emission, in the absence of the project, from the existing network, only within the boundary defined above. The forecasts reflect the Services' assumptions on traffic, traffic growth, speed/flow, infrastructure capacity and fuel consumption.

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.

Environmental and Social Assessment

Social Assessment

The main adverse social impacts are expected to be related to involuntary resettlement during the land acquisition phase. The project entails the displacement of 764 project-affected people. The majority of PAPs are traders, with the highest concentrations of them being in the first section of the road (Pk 0 + 000 – Pk 20 + 000). In addition to economic displacement, 186 households are expected to be physically displaced.

A complete assessment of land acquisition and resettlement has been completed. All attempts have been made during project preparation to minimize land acquisition, resettlement and adverse impacts on people in the project area. The promoter prepared a Resettlement Action Plan consistent with EIB requirements. The document was prepared in



Luxembourg, 14 September 2022

consultation with all project-affected persons and has been disclosed on the website of the Promoter and EIB.

To avoid any disproportionate negative impacts on vulnerable groups, the RAP identifies vulnerable people in the project-affected community and proposes additional financial and in-kind assistance. For economic displacement, specific livelihood restoration measures are included in the entitlement matrix of the RAP.

Women represent roughly 40% of the total project affected people. Female PAPs are mostly traders in the N'Djamena area. The RAP consultant has consulted with women's associations during the socio-economic surveys. All local committees for the management of stakeholder engagement and the redress of community grievances are required to include women representatives.

Despite the publication of new national planning guidelines and action plans to promote gender equality, women in the project area of influence remain a vulnerable category to a number of project-related impacts, including potential GBVH. To address the GBVH risks, a specialized consultant will be hired on a part-time basis for a period of 3 years. Furthermore, the Promoter will be working with a local NGO to collect and address GBVH-related complaints at community level. All E&S management plans will be required to hold a specific gender lens to minimize adverse impacts on women and enhance positive ones (especially employment-related), where possible.

Two religious structures (i.e. mosques) are affected by the land acquisition of the project. The loss of such assets will be compensated according to the entitlement matrix of the RAP and in line with the consultations held with the local communities and local religious authorities.

EIB finance will be subject to implementation of the RAP prior to the handover of sites to the work contractors. Based on the construction schedule proposed, the RAP could be implemented by sections to clear specific areas according to the priority level discussed with the contractors. The promoter is required to seek specific external support for the implementation of the RAP to ensure adherence to the resettlement principles validated by the lenders.

In accordance with national law on labour standards and ILO obligations ratified by Chad, the works contracts will comply with ILO core labour standards. Contractors, consultants and suppliers shall ensure occupational and community health & safety as part of their works contracts.

Other potential social risks arising due to the project are: (i) poor application of relevant labour standards related to employee working conditions during construction and operation; and (ii) poor occupational and community health and safety during construction. These will be addressed primarily through the inclusion of contractual obligations for the first tier suppliers and contractors, which will be enforced by the Promoter's supervision team. An updated ESMP in line with the EIB's standard will also be required to the works contractor before mobilization.

Public Consultation and Stakeholder Engagement

Public consultations in the framework of the ESIA process were organized on 28 August 2021 and from 4 to 10 September 2021 in six provinces. 85 women (15.66%) and 455 men (83.89%) were consulted. The stakeholders were informed about the project. Their views on impacts, and in particular on negative impacts, were collected.



Luxembourg, 14 September 2022

Additional stakeholder engagement were conducted during the preparation of the Resettlement Action Plan from 11 February to 3 April 2021 in six provinces: Ndjamena, Logone Occidentale, Logone Oriental, Chari Baguirmi, Mayo Kabbi Est and Tandjile. The RAP consultants have engaged 771 people – 115 women (17%) and 656 men (83%).

Due to the local context, ensuring significant participation of women in public engagement activities proved challenging. The views of women were collected mainly through specific focus groups and/or representatives of local women's associations.

Active stakeholder engagement is required throughout the duration of the project. The promoter is required to develop a Stakeholder Engagement Plan, including a fully-fledged grievance redress mechanism before any disbursement on the project.

Other Environmental and Social Aspects

The capacity of the promoter is estimated to be limited, both in terms of availability of resources as well as technical expertise with regard to the management of complex social and environmental issues.

The project contractors will be required, as a condition of their contracts, to develop, implement and comply with the ESMP. The promoter, supported by a Technical assistance to the PIU (Project Implementation Unit) will rely on Supervising Engineers for Project environmental and social supervision of contractors' environmental and social requirements, and on the promoter's Environmental and Social Management for monitoring and reporting on environmental and social performance.

Conclusions and Recommendations

Once completed, the project is expected to have significant positive socio-economic impacts for the community, especially the road users. The rehabilitation of the road and the maintenance of sections currently in distress are expected to contribute to reduce driving times and costs. The implementation of new road safety measures are expected to contribute to the reduction of road accidents, which are currently negatively impacting the road users and the communities along the road.

However, some limited negative environmental and social impacts can occur during construction and operation. Appropriate mitigation measures will be introduced through relevant management plans.

Subject to the fulfilment of the below-mentioned conditions, the project is acceptable for EIB financing in E&S terms.

The EIB will condition its loan disbursements on:

First disbursement conditions for the works component:

- final version of the RAP to the satisfaction of the Bank;
- final version of the Environmental and Social Management Plan (ESMP) to the satisfaction of the Bank;
- evidence that the resettlement process has been completed for a meaningful number of the households in accordance with the RAP to the satisfaction of the Bank;



Luxembourg, 14 September 2022

- confirmation that the PIU and supervision teams includes environmental and social experts to implement the ESMP and RAP;
- preparation of a Stakeholder Engagement Plan outlining the ongoing and foreseen consultation process with the Project Affected Peoples (PAPs) and including an accessible project wide Grievance Mechanism to the satisfaction of the Bank;
- preparation of a Biodiversity Management Plan on the Mandalia reserve and the Ramsar zone of the Logone floodplains;
- the project takes into account to the extent feasible the climate vulnerability risks faced by the project and as identified through the CRVA undertaken.

For all disbursements for the works component (including first):

- evidence that the implementation of the RAP is advancing satisfactory in relation to the project calendar, such that sufficient right of way is available for construction;
- evidence that adequate grievance mechanism(s) are in place for the affected persons, stakeholders and workers to the satisfaction of the Bank.

Undertakings:

In addition, the Bank will seek commitments from the Promoter to:

- implement the project in line with the provision of the environmental documents (ESMP, RAP, SEP, GM etc);
- report regularly on the status of RAP and ESMP implementation;
- report regularly on the status of gender issues (including Gender Based Violence and Harassment (GBVH)), vulnerability and human rights according to the requirements laid out in the ESMP and RAP;
- ILO (International Labour Organization) conditions are included in the contracts.

Subject to the above mentioned environmental and social conditions being met, the overall residual environmental and social impacts of the Project are expected to be acceptable.