

GOVERNMENT OF THE CO-OPERATIVE REPUBLIC
OF GUYANA

Ministry of Public Infrastructure

WORKS SERVICES GROUP



Project Summary

**The Linden to Mabura Hill Road Upgrade and River
Crossing at Kurupukari**

April 2019

Feasibility Study and Designs for the Linden to Mabura Hill Road Upgrade and River Crossing at Kurupukari

The Government of Guyana, represented by the Ministry of Public Infrastructure, has entered into a Contract with Mott MacDonald, UK in Association with SRKN'gineering and Associates Ltd. and Malcolm Hughes Land Surveyors Ltd. to undertake a feasibility study and designs for upgrading the roadway from Linden to Mabura Hill into an “all-weather” status and bridging the Kurupukari Crossing. This project which is funded by DFID and administered by CDB, is the first stage in realising the greater vision for upgrading the entire corridor from Linden to Lethem.

1.0 Background and Description of Roadway

The overarching focus of the national road transport strategy is upgrading and expanding the road transport network to improve connectivity between the coastland (Guyana's population and economic centres) and the hinterland which is rich in mineral resources and home to pristine rainforest. The goal is to improve the efficiency of road transport across Guyana and the safety and level of service provided by our primary corridors.

The Georgetown to Lethem road has been identified as the critical North-South link between the hinterland and the coastal belt, enhancing access to the seaport at Georgetown and the port of Linden. Improvement of this roadway will support more efficient freight movement between the northern Brazilian states and the Atlantic engendering greater economic opportunities for Guyana.

The Linden to Lethem Road is approximately 454km of unpaved roadway with more than 100 drainage structures and timber bridges. The first 2km of the road has a double bituminous surface treatment that is heavily distressed and the remaining roadway has a laterite surface. Drainage is generally poor resulting in extensive scouring as well as large potholes at segments of the roadway rendering them virtually impassable during the rainy season. In addition, there are limited safety features along the corridor and geometric improvements are necessary in some segments. Based on the capacity and condition of the structures, all will require replacement.

The road is intercepted at Kurupukari, it's halfway point, by the Essequibo River which is approximately 600m wide at that location. Currently a 12-hour pontoon service (6am – 6pm) operated by a Private Company –Mekdeci Machinery and Construction Inc. (MMC), facilitates vehicular crossings.

2.0 Description of Project and Project Area

Since the first segment of the roadway was the least maintained at the time and the river crossing at Kurupukari is the most restrictive part of the corridor, they were accordingly packaged under this first phase of the project.

Through this project, the Government of Guyana is upgrading the first 125km approximately from Wismar Junction, Linden to Mabura 'Hills' to an all-weather status and replacing the four

structures contained in this stretch. There will be corresponding improvements to drainage, structures, geometry and safety features of the roadway in order to improve service variables and achieve the economic benefits associated with the roadway. The crossing at Kurupukari creates a bottleneck hence bridging that area is also an important component of this study to achieve continuity in the corridor.

A Map indicating the location of the Linden to Mabura Hill Road and the Kurupukari crossing is presented in Figure 1 below.

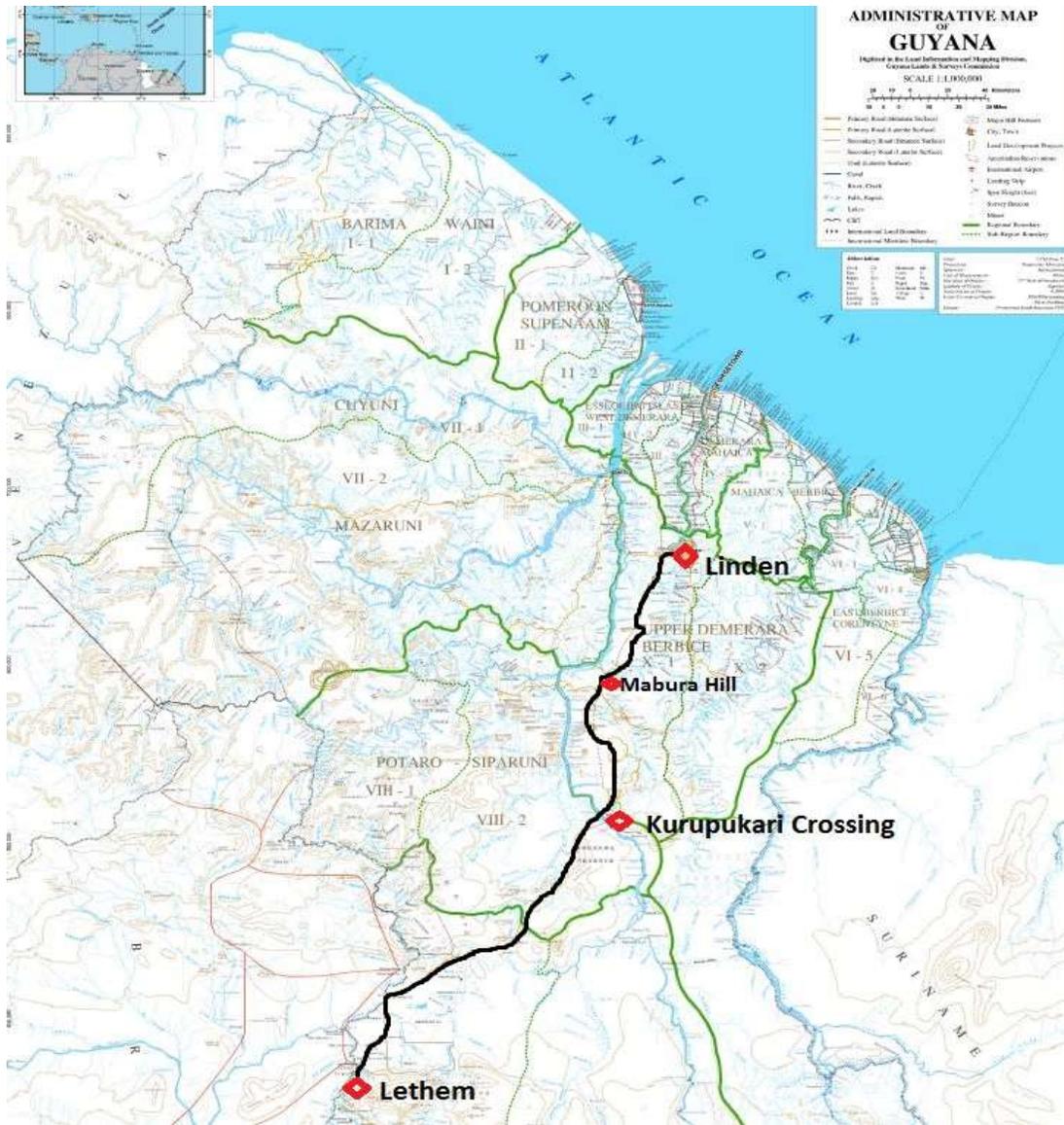


Figure 1: Project Location Map

A map showing the present land use along the project corridor is presented in Figure 2 below.

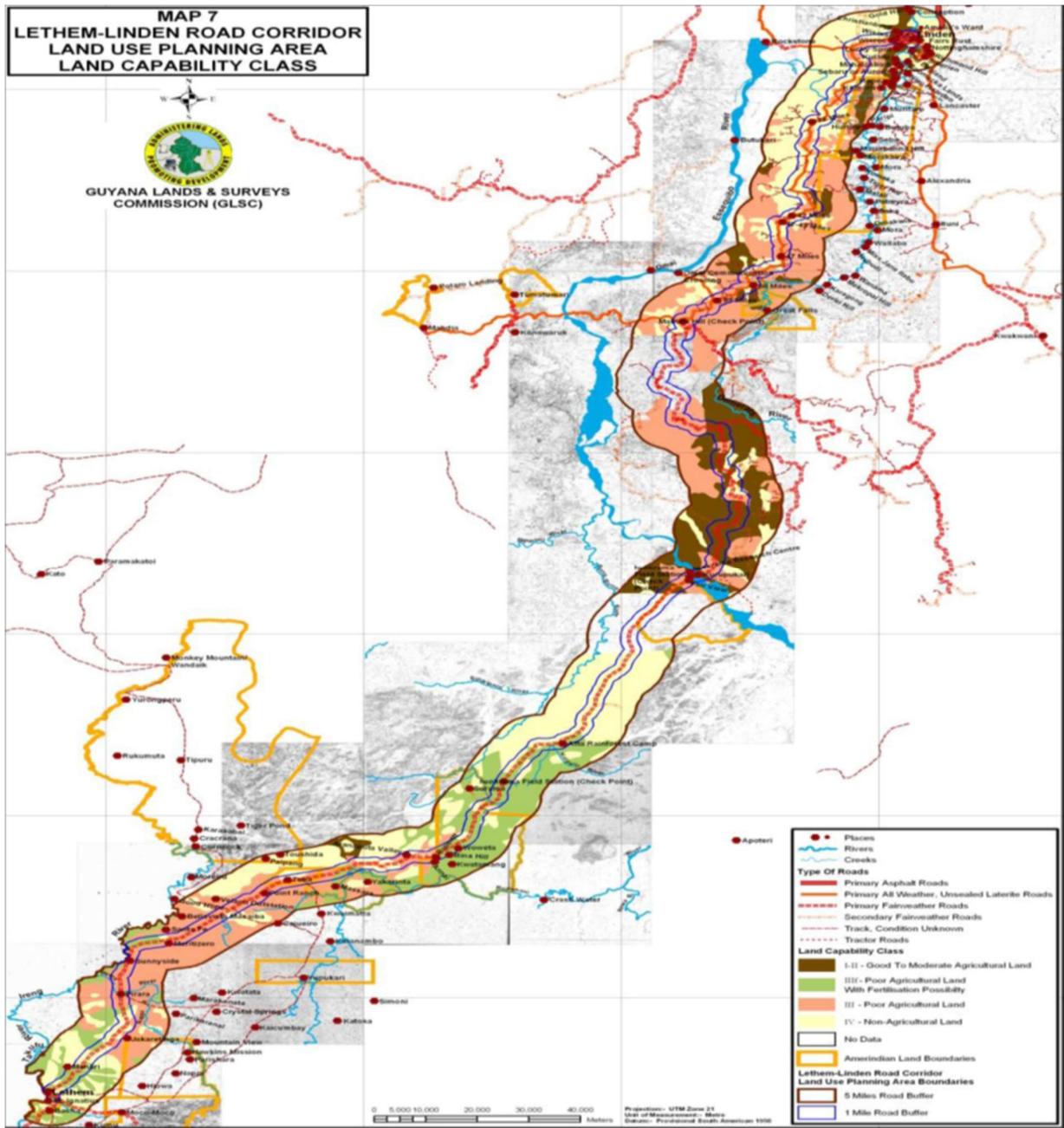


Figure 2: Land Use Map

Notwithstanding the defined project limits, the influence area of that segment of the roadway and crossing will be taken into account in the Study.

2.1 Objectives of the Consultancy

- Update the most recent feasibility study for upgrading the segment of the road from Linden to Mabura Hill and the crossing at Kurupukari
- Prepare detailed designs, cost estimates and bidding documents for upgrading the roadway from Linden to Mabura Hill
- Prepare concept designs and identify performance specifications and design criteria for the bridge, and prepare design-build bidding documents

An important requirement is for the designs to be climate resilient.

2.2 Scope of Consultancy Service

Key elements of the scope of this Study are:

- Data collection to augment existing data – topographic surveys, bathymetric surveys, geotechnical surveys, condition assessments, collection of traffic, meteorological and land use data etc.
- Stakeholder Consultations
- Economic Analyses using HDM IV or RED Model
- Financial Analyses
- Climate Vulnerability Assessment (CVA) and Hydrological Modelling
- Environmental and Social Impact Analysis with an emphasis on gender analysis
- Preliminary & Final Designs and Cost Estimates for the roadway and associated infrastructure
- Conceptual Designs & Selection of Performance Criteria and Design Criteria for the River Crossing
- Bidding Documents for roadway and river crossing

Scope of ESIA

The Consultant is required to conduct a detailed ESIA with gender analysis being an important focus of the Social Impact Assessment aspect. Below are the focal areas of the ESIA and attached are detailed requirements/guidelines for conducting the ESIA and reporting.

- Assessment of baseline conditions including environmental and social characteristics within the project area and the demographic profiles of communities

- Identification and Characterization of Potential Impacts of the project alternatives on all facets of the environment –physical, ecological, cultural heritage resources, archeological etc.
- Identification of measures that can be incorporated into the designs to reduce the potential impacts of the project
- Identification of mitigation measures for all significant adverse impacts identified during the construction and operation phases
- Identification of measures for maximizing positive impacts of the project
- Preparation of an ESMP

3.0 Benefits/Significance of the Project

The following benefits are anticipated when the entire roadway from Linden to Lethem is upgraded and other accompanying developments in the port facilities and access are realised:

- Improved access to the mining and logging regions – mining and logging are among the main drivers of our economy; with efficient access operations cost will reduce.
- Improved access to services and improved livelihoods for hinterland communities
- Potential for encouraging development along the corridor and opening up more agricultural lands and industrial zones
- Induced freight traffic from Manaus - more efficient freight movement between northern Brazilian states which are landlocked and the Atlantic
- Better connectivity with our immediate neighbours and the wider South American region – this will engender many economic opportunities

4.0 Potential Environmental Impacts and Mitigation Measure

Reference is made to the Environmental and Social Impact Assessment (2012) that details the potential environmental and social impacts associated with the project and mitigation measures that can be employed to reduce those impacts. It should be noted that an updated ESIA report will be produced as an output from the current study.