





Government of the Co-operative Republic of Guyana Ministry of Public Works

Loan No. 10/SUR-OR-GUY-Grant No. GA 44/GUY

DRAFT TERMS OF REFERENCE

FOR

CONSULTING SERVICES FOR STRENGTHENING OF AXLE LOAD CONTROL

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1. BACKGROUND

- 1.1 The Linden-Lethem Road is critical in providing connectivity between Guyana's hinterland and coastal regions. The current road is unpaved, exhibits structural failure, has poor geometry, and presents numerous safety concerns. During the rainy season, segments of the road erode and become impassable. Consequently, the level of service is very poor. The Government of Guyana (GOGY) is in the process of upgrading 121km of road from Linden to Mabura Hills. The works include paving works and improving drainage, structures, geometry, and safety features.
- 1.2 Road pavements are generally designed to carry a certain number of Equivalent Standard Axles 80 kilonewtons (8.2 tonnes) during the service life of the road. Overloaded truck axles are a large contributor to premature pavement failures, significantly reducing pavement life, and increasing maintenance and vehicle operating costs. A recent survey carried out in Guyana revealed that a major contributor to pavement damage was trucking/carting construction material and other goods, however, trucks transporting fuel and lumber were specially identified as having the most damaging impacts. Unfortunately, fines for noncompliance are archaic and hardly act as an effective deterrent to the perpetrators. In November 2010, recommendations for the revision of the legislation (Cap 51:02) that deals with vehicle weight limits, penalties, and enforcement were submitted to GOGY. However, since then, there has not been significant progress in addressing the matter of Axle Load Control on the roads in Guyana.
- 1.3 To reduce the risks to the sustainability of the ongoing road improvements and to enhance the management of the road sector in Guyana, GOGY proposes to develop and implement a programme of activities to strengthen axle load control. It is expected that this will reduce vehicle overloading and prevent premature deterioration of road pavements.

2. OBJECTIVE

2.1 The objective of the consulting services is to develop and initiate the implementation of a realistic program of axle load control in Guyana.

3. SCOPE OF SERVICE

3.1 The services are to be conducted in accordance with generally accepted international standards and professional practices acceptable to GOGY. The scope of work is understood to cover all activities necessary to accomplish the objectives of the consultancy, whether or not a specific activity is cited in these Terms of

- Reference (TOR). A participatory and consultative approach is to be adopted in the conduct of the services. The consultants shall, among other things:
- 3.1.1 Review and examine lessons learned and good practices from other developing countries comparable to Guyana that have successfully implemented load control programmes.
- 3.1.2 Review the existing and proposed amendments to the legislation for vehicle weight and axle load control in light of current recommended practice internationally, in addition to historical and recent axle load studies.
- 3.1.3 Investigate practices of the overloading of trucks/ truck axles through an axle load survey along the *Georgetown to Lethem Road* corridor and identify the extent and impact on the existing roadways. This information is to be utilized as a part of the meaningful stakeholder consultation as well as for the determination of the proposed axle load control measures.
- 3.1.4 Identify the design and construction standards, procedures, and practices used for the various classes of roads in Guyana.
- 3.1.5 Undertake a stakeholder analysis, develop and carry out a plan for engagement with a broad range of stakeholders across the public and private sectors who would be affected by, or are interested in axle load control. Interviews, surveys, focus groups, workshops, or other methods may be appropriate, as determined by the consultant in collaboration with GOGY to ensure meaningful consultation.
- 3.1.6 Assess the institutional structure, capacity, and training needs in respect of the GOGY ministries/agencies responsible for the management of vehicle weight control.
- 3.1.7 Advise on any further modifications to the legislation and/or the regulations related to vehicle axle loading and control necessary to achieve the intended objective.
- 3.1.8 Assess equipment options (including permanent and mobile units and combinations of these) in light of all operational factors and costs.
- 3.1.9 Assess the potential technological requirements, options and technology transfer mechanism as well as potential financial resources to comply with Axle Load control at source.
- 3.1.10 Prepare preliminary design and cost estimates for alternative, effective, and practical axle load control systems (identifying any acceptable options).

- Provide a plan for the implementation of the proposed recommended system, including arrangements for data collection, monitoring and evaluation.
- 3.1.11 Establish an electronic database and arrangements for data collection and data entry for monitoring axle loads across the road network.
- 3.1.12 In respect of the Linden to Mabura Hill Road specifically, assess the current and likely future traffic on the project road, recommend the location of permanent and/or mobile control stations, and prepare technical specifications for the equipment to be used.
- 3.1.13 Determine the recurrent funding required to operate the proposed system and on the scope for establishing the system as self-financing.
- 3.1.14 Recommend, if necessary, measures to assist transport operators in conforming with axle load regulations.
- 3.1.15 Develop a public awareness campaign, and a campaign for informing the transport operators about axle load control and the proposed system for implementation by GOGY. Develop a framework for monitoring the effectiveness of the campaign.
- 3.1.16 Design and implement an initial programme of training for GOGY agencies on axle load control, to be further supplemented by suppliers of equipment to be procured by GOGY.
- 3.1.17 Undertake a follow-up visit six (6) months after implementation to assess the result of the Axle Load Control programme.

4. QUALIFICATIONS AND EXPERIENCE

- 4.1 The Consultants must have excellent written and oral communication skills and be fluent in English. Team members should have proven experience, skills and knowledge of adult learning principles; development of capacity building and training strategies, plans and programmes, and workshop facilitation. While Non-Key Experts may be required as part of the team, the Key Experts are as follows:
- 4.1.1 **Axle Load Control Specialist:** The candidate shall have a Bachelor's Degree in Civil Engineering, be professionally licensed/registered, and preferably have a Master's or higher degree in highway engineering. The candidate shall have a minimum of fifteen (15) years of general experience as an engineer and

- eight (8) years of project-specific experience in the development and implementation of axle load control systems in developing countries.
- 4.1.2 **Institutional/Training Specialist:** The candidate should preferably have a Master's Degree in Economics, International Development, Management or another discipline related to the function required, with a minimum of ten (10) years of relevant professional experience.
- 4.1.3 **Public Information Specialist**: The candidate should have at least a Bachelor's Degree in Communications, Public Relations, Journalism, Knowledge Management, or a related field and at least ten (10) years of experience or a Master's degree and at least five (5) years of experience in developing, implementing experience in developing, implementing, and disseminating multimedia public information programmes or campaigns. The candidate must demonstrate experience in reaching diverse audiences and have experience in designing and implementing a media monitoring and reporting programme.

5. OUTPUT/DELIVERABLES

- 5.1 The Consultants will be required to submit four (4) copies of each report. The reports shall also be submitted in PDF format as complete documents, as well as in Microsoft Word and Excel, AutoCAD, and/or other formats used in their creation. The reports shall be submitted in draft for comment by GOGY, prior to the submission of final versions. Three weeks shall be allowed for the submission of comments by GOGY. Electronic copies of all data used in the preparation of the reports shall also be submitted to GOGY.
- 5.1.1 <u>Inception Report</u>: the report will summarise the Consultants' findings, detail the supplementary data required for the subsequent tasks, and describe the approaches proposed to be taken to prepare and deliver the scope of services outlined, including a schedule for all activities. The inception report should include a review of best practices and lessons learned from an Axle Load Control Programme implemented in a developing country similar to Guyana. The report is to be submitted within six (6) weeks of the start of the assignment.
- 5.1.2 <u>Institutional and Training Needs Assessment Report</u>: details of these assessments and recommendations for any structural changes proposed and details of the capacity building measures and training programmes. To be submitted within two (2) months of the start of the assignment.
- 5.1.3 Axle Load Control Report: details of the proposed Axle Load Control

programme. To be submitted within three (3) months of the start of the assignment.

- 5.1.4 Awareness and Communications Programme: details of the proposed programme, including consultations and agreements by GOGY agencies for implementation; communication materials; cost estimates; monitoring and evaluation framework and institutional responsibilities. To be submitted within four (4) months of the start of the assignment.
- 5.1.5 <u>Interim Report</u>: summary of the implementation of the assignment, results achieved, lessons learned, training activities and consultations; recommendations for future work, and the proposed Axle Load Programme to be implemented by GOGY, including the monitoring and evaluation arrangements, with institutional responsibilities and arrangements for data collection. To be submitted within six (6) months of the start of the assignment.
- 5.1.6 **Final Report**: report on the follow-up visit, presenting and analysing the data collected, the results achieved, further lessons learned and recommendations for follow-up action. To be submitted twelve (12) months after the start of the assignment.

6. PAYMENT SCHEDULE

Payment is contingent on the acceptance of each deliverable by GOGY. The timelines, deliverables and payment schedule are as per table below:

Item #	Deliverable	Timeline	Payment %	Remarks
1	Inception Report	Six (6) weeks from the start date	10%	Within 30 Days of Acceptance
2	Institutional and Training Needs Assessment Report	Two (2) months weeks from the start date	10%	Within 30 Days of Acceptance
3	Axle Load Control Report	Three (3) months weeks from the start date	15%	Within 30 Days of Acceptance
4	Awareness and Communications Programme	Four (4) months from the start date	15%	Within 30 Days of Acceptance

5	Interim Report	Six (6) months from the start date	20%	Within 30 Days of Acceptance
6	Final Report	Twelve (12) months from the start date	30%	Within 30 Days of Acceptance

7. IMPLEMENTATION ARRANGEMENT

- 7.1 The Consultants will report to the Project Manager designated by the Ministry of Public Works. The Project Manager will facilitate the work of the Consultants and make available all studies, reports, and data relevant to the completion of the exercise and will act as the liaison between the Consultants and GOGY officials and stakeholders and as quality assurer.
- 7.2 GOGY will provide office accommodation for the Consultant(s) while based in Guyana. GOGY will also provide local transportation for site visits and work meetings. Other ground transportation should be included in the reimbursable expenses in the proposal prepared by the Consultants. The Consultants will be required to provide computers for the conducting of the services.

8. DURATION

It is estimated that the assignment will be undertaken over a period of twelve (12) months.