TERMS OF REFERENCE

FORMULATION OF AN INTEGRATED, SUSTAINABLE ROAD TRANSPORT POLICY AND STRATEGIC ROADMAP FOR IMPLEMENTATION

1. BACKGROUND

1.01 Saint Lucia is a small island developing state of approximately 620 km. A 2010 population census indicated that the island's population stood at 173,765. Significant growth and development have taken place in various sectors including housing, agriculture and tourism, the latter two being the mainstays of the local economy for decades. This has increased the demand for efficient transportation and transportation infrastructure. Transport is critical to social and economic development. It provides access to education, health, livelihoods, markets for jobs, housing, goods and services and the free movement of persons for social integration. Poor access to road transport services has major implications for development trajectories and also on intergenerational cycles of poverty.

1.02 The rapid growth in the motor vehicle fleet (both new and used) has largely been viewed as unsustainable because of low capacity to effectively address environmental, social, gender and safety issues and risks.

1.03 A recent study of Energy Efficiency (EE) in the transport sector determined that it consumed over 50% of energy in Saint Lucia. The total transport emission counts for about 40% of the CO_2 amount currently emitted in the country. It was about 240 $GgCO_2e$ in 2012 and is expected to achieve 330 $GgCO_2e$ in 2030 under a business-as-usual (BaU) scenario.

1.04 Although Saint Lucia is a small emitter of greenhouse gases (GHG), the country supports global efforts to reduce GHG emissions. In line with its commitments, Saint Lucia developed Nationally Determined Contributions (NDC) that established targets of 16% and 23% emission reductions compared to BaU by 2025 and 2030 respectively. They are planned to achieve using cross-sector mitigation measures that include, among others, transportation interventions such as promotion of fuel-efficient vehicles and expansion of public transport.

1.05 Saint Lucia as a Small Island Developing State is particularly threatened by climate change. The Government recognises these challenges and developed a 10-year National Adaptation Plan 2018-2028 (NAP) for eight priority sectors, including infrastructure and spatial planning, with the aim to reduce vulnerability and to build climate resilience in the country though integration of climate change and risk disaster management considerations into relevant new and existing policies, programmes, activities as well as planning, budgeting and other decision-making processes.

1.06 Failure to integrate land use planning sufficiently into transport initiatives has created a traffic demand which is becoming increasingly difficult to manage. Highways are very costly to construct, and these projects place onerous burdens on public sector resources to increase the capacity of existing roadways.

1.07 The transport environment has been characterised by frequent traffic congestion, inefficient public transport systems, limited safety and functionality of road networks and growth and development pressures in more developed areas. This has necessitated a review of land use planning, transport and transport infrastructure.

1.08 Recent adverse weather events have crippled road transportation services with the destruction of several bridges and roadways which provide singular access between certain parts of the island. Planning and design of road infrastructure must consider experiences of users, for gender needs and priorities, provision of alternative routes, as well as durability of infrastructure to withstand severe weather conditions, and longer-term sustainability of the investment.

1.09 The island has also seen a marked increase in road fatalities and crashes especially among motorcyclists, cyclists, pedestrians and public transport vehicles. The social, financial and economic toll of death and injury from these crashes are among the more critical reasons for making the transport system more sustainable. The loss of income following accident to family members is a key factor in spiralling income decline and has extended implications. There is a need to value the economic and social impacts of traffic accidents and how to mitigate the dangers and to focus on the reduction in number of killed and seriously injured child pedestrian, young men and other vulnerable road users.

1.10 In addition, travel demand management and physical planning are intrinsically linked, and are vital to the development of the sector. A national land use policy determines where commercial, industrial, housing and recreational developments are located and the goods and services associated with those types of developments which will inevitably mushroom along the periphery of these developments.

1.11 While roads for motor vehicular traffic are the primary component of the current transportation system, it has become necessary to strategically review existing systems and to develop a multi modal transportation system which addresses factors related to energy consumption patterns; air, water and environment quality from particulate emissions, noise and waste both new and used vehicles may generate; access to transport services and road safety; impacts on ecosystem diversity and cultural heritage.

1.12 The development of an Integrated, Sustainable Transport Policy and Strategic Roadmap will provide essential information and guidance for transportation and planning decisions.

These include:

(i) A long-term vision and strategic direction, which supports short term decision making.

(ii) A policy document and strategic plan that is aligned to global United Nations' five road safety pillars which include Road Safety Management, Safer Roads and Mobility, Safer Vehicles, Safer Road Users and Post Crash Response., regional and national strategies, policies. approaches and plans, which will ensure better coordination of transport planning with other development initiatives.

(iii) Integrating gender equality and social inclusion with more efficient and effective socially-inclusive and gender-responsive planning and prioritisation of transport facilities, services and resources (frequent bus stops with appropriate lighting, schedules adapted to the needs of users, separate sanitary facilities in bus stations, conflict management and sexual harassment training for bus drivers).

(iv) Recommendations which are supportive of land use development to increase travel opportunities for all by various modes of transport.

(v) Identification of strategies, policies and initiatives which support the efficient and safe movement of people, especially vulnerable groups (women, children, elderly and Persons with Disabilities) and encourage maximum use and safety of the improved infrastructure through various activities including *inter alia,* walking,

cycling, public transport, carpooling and telecommuting and propose strategies for dealing with such inequalities.

(vi) Identification of strategies, policies and facilities that support efficient movement of urban freight which promotes commercial investment.

2. PURPOSE AND GOALS

2.01 The main purpose of this exercise is to develop a multi-modal, integrated, sustainable transport policy, as well as a strategic roadmap for the implementation of that policy which makes provision for future road transport demands for Saint Lucia.

2.02 The integrated, sustainable road transport policy must focus on the following main areas:

(a) establishment of a multi-modal transportation system that reduces reliance on any single mode of transport, encourages walking and cycling and promotes EE and environmental sustainability.

(b) integration of disaster risk management and climate resilience considerations;

(c) integration of gender equality and social inclusion considerations, enabling environment (movement of persons and goods efficiently and safely);

(d) promotion of public/private partnerships.

3. SCOPE

3.01 The scope of this exercise will comprise a general background analysis of the road transport sector, particularly the constraints that hinder sustainable development of that sector. The studies and background research undertaken to develop the Integrated, Sustainable Transport Policy and Strategic Roadmap for Implementation will be primarily completed by the consulting team with general direction and input provided by a Working Group to be established by the Department of Infrastructure, Ports and Energy (DIPE). It is essential that the Policy be integrated with other land use planning and EE initiatives. As such, the consulting team will be multi-disciplinary with expertise in strategic transportation and land use planning, transportation demand management, transportation modelling and participatory public consultation regarding transportation needs, priorities and issues. The study will also examine the social/gender, legal, environmental, technological and financial aspects of the sector, and make prioritised recommendations for road sector improvement with options for their implementation and indicative economic viability assessments.

3.02 The consulting team will be responsible for the following tasks:

(i) Hold a kick-off meeting immediately not later that one week following commencement of the Services;

(ii) Update a work plan included in the Consultant's Technical Proposal. It should, at least:

(aa) include an updated schedule of action items, identification of stakeholder group meetings, public consultations, workshops, survey(s), data collection, deliverables submissions as well as other activities and timelines;

(bb) include further elaborated work programme and methodology;

(cc) be sufficiently detailed to indicate how the objectives of the assignment will be met.

(iii) Conduct site investigations to become familiar with critical study areas as required.

(iv) Hold discussions with the Department of Economic Development, Transport and Civil Aviation, Department of Infrastructure, Ports and Energy, National Council on Public Transportation, National Taxi Union and other stakeholders, including especially different categories of road users to obtain a clear understanding of their respective transportation constraints, needs, priorities and strategies.

(v) Conduct a survey to determine factors influencing users' choice among different transport options and collect data on public safety, customer travel patterns, demographics, demands, ridership and other as necessary;

(vi) Review and apply where applicable, origin/destination information to support existing and future land-use density objectives.

(vii) Identify known transportation problems and potential challenges which may surface if not addressed and recommend transportation policies which will be supportive of land use, EE and other environment policies, road safety, ecosystem diversity and cultural heritage and road sector development enablers, including capacity strengthening, disaster risk management, climate resilience, gender and vulnerable groups inclusion, technology adoption, etc.

(viii) Develop a transportation model allowing the Consultant and the Client to analyse influence of changes in land use, population, demographics (sex, age, disability status, household size, etc.), and other factors on the travel demand, to measure the impact of different transport systems on the transport network and test a limited number of ad-hoc scenarios to be agreed by the Consultant and the Client based on the policy options to be identified in the course of this assignment.

The model may be subject to limitations relating to data availability. In such cases, gaps could be mitigated by using well-informed assumptions based on international practices preferably for Small Island Developing States, and/or Consultant's previous experience.

It is expected that model will be developed using specialised software and, if necessary, standard statistical package for data entry, coding, analysis, presentation and visualisation as well as export to Excel or other formats as may be agreed by the Consultant and the Client.

The Consultant is required to hand over all software packages and tools to be used for data entry, coding, analysis, presentation, visualisation and export together with user manuals and other documentation. All costs of software licenses and support for at least one year following the contract completion shall be included in the financial proposal.

(ix) Develop criteria for the rationalisation of the existing road system.

(x) Recognising difference in women's, men's and other vulnerable groups' mobility patterns and accessibility needs, analyse existing transportation system and identify the following based on current and projected needs and rationalisation criteria for:

(aa) road improvements;

(bb) new roads/corridors required, including bypasses around existing and proposed settlement areas; and

(cc) bike parks, car-pool lots at strategic locations.

(xi) Analyse the movement urban freight/commercial goods and develop solutions to improve delivery, transportation and offloading of goods from air and sea-ports and by courier delivery services:

(aa) Explore financing options and mechanisms for transport infrastructure. including bus terminals;

(bb) Review existing reports, policies and studies including but not limited to:

(i) National Energy Policy;

(ii) Electricity Supply Act;

(iii) Saint Lucia National Housing Policy and Strategic Plan of Action;

(iv) National Policy and Strategic Plan of Action for Urban Renewal in Saint Lucia;

(v) Legislation pertaining Physical Planning and Development, Motor Vehicles and Road Traffic, Land Use, etc.;

(vi) Saint Lucia National Vision Plan;

(vii) Draft National Street Lighting Policy;

(viii) Castries/GrosIslet Highway Improvement Project;

(ix) Rodney Bay Village and GrosIslet Town Enhancement Study;

(x) Castries Re-development Study;

(xi) Vehicle Weight Legislation;

(xii) NDC; and

(xiii) NAP.

(cc) Schedule stakeholder group meetings to review preliminary findings and provide direction for scope of the Strategic Roadmap. A schedule must be provided for stakeholder meetings;

(dd) Hold a minimum of six (6) public consultations islandwide;

(ee) Provide reports as defined in sub-section 6. Reports and Deliverables of the Terms of Reference to advise the DIPE on the progress of this exercise;

(ff) Document the findings and develop conclusions and recommendations;

(gg) Present findings to DIPE for further consultations with relevant stakeholders;

(hh) Prepare an Integrated, Sustainable Transport Policy and Strategic Roadmap, including an executive summary outlining detailed actions for approval and implementation.

4. TASKS

4.01 **Phase I**

(a) Develop and recommend the necessary transportation infrastructure network, policies and initiatives to complement land use, housing and urban renewal plans and other official national development plans for planned economic growth.

(b) Identify existing and emerging and/or anticipated transportation issues related to trends in the country's settlement growth patterns and methods.

(c) Conduct a survey to determine factors influencing users' choice among different transport options and collect disaggregated data on customer travel patterns, demographics, demands, ridership and other as necessary;

(d) Identify improvements to roadways, including linkages with towns and villages and establish a coordinated strategy for connectivity.

(e) Recommend an efficient, cost-effective, reliable multi-modal transportation system for present and future needs.

(f) Identify corridors to meet current and projected needs for various modes of road transportation including bypass routes.

(g) Develop and recommend road transportation demand policies for implementation to reduce trip distance and time and increase modal share of alternatives to private vehicle use.

(h) Review and analyse road classification and systems and recommend changes/updates if necessary.

(i) Determine the need for and extent of existing setback requirements, including utility corridor structures, along all transportation corridors.

(j) Review road design standards, pedestrian/bicycle pathways, bus stops, bus shelters, placement of street lamps, bus terminals and accessibility for vulnerable/physically challenged persons.

(k) Develop a transportation model to analyse travel demand and measure the impact of different transport systems on the transport network as well as user manuals and documentation.

(l) Consider rationalisation of the road system and related alternatives.

(m) Review road safety issues, and challenges and make recommendations for improvements to vulnerable areas.

(n) Review how cultural norms, attitudes and driving practices of men, women and youth have affected road behaviour and impacted road safety outcomes and make recommendations for improvement.

(o) Identify and itemise transportation network infrastructure requirements by five (5) year increments.

(p) Review traffic management and parking policies in major towns and capital to improve traffic flows.

(q) Identify various transportation demand management and transit-related initiatives, which can be implemented in the short, mid and long term to increase modal share and reduce vehicle miles travelled;

(r) Recommend infrastructure to support sustainable transport developments including electric vehicle charging, the future use of terminal infrastructure accommodating charging for electric buses, the placement of bud stops in areas where revewable energy use can be optimised, bicycle and pedestrian traffic.

4.02 **Phase II**

(a) Develop a strategic roadmap which can be used as an implementation plan with milestones and timelines.

(b) Enhance multimodal and walking accessibility to education, health, settlements, employment opportunities, tourist and recreational centres islandwide.

(c) Provide connectivity between transportation modes for moving people and goods.

(d) Provide detailed recommendations directing the future development of road/corridor design guidelines.

(e) Identify monitoring factors to measure policy performance and effectiveness.

(f) Recommend intelligent transport systems which can increase the utilisation of transport infrastructure through the adoption of Information and Communication Technologies.

(g) Review vehicle importation standards to ensure congruence with exhaust emissions and pollutant control standards, including among others encouraging acquisition of low carbon public transport such as electric buses.

(h) Recommend capacity-building initiatives for certified garages and vehicle inspectors to monitor motor vehicle emissions, handle various modes of sustainable transport such as Electric and Hybrid vehicles, waste management, etc.

5. DURATION OF THE CONSULTANCY

5.01 The consultancy is expected to be conducted over a period of approximately fourteen (14) months that covers the period required to make the Final Payment in accordance with General Conditions of Contract (GCC) Clause 41.2.3.

6. REPORTS AND DELIVERABLES

6.01 The consultancy team will be required to prepare:

(a) a Draft Inception Report within one month of commencement of services. It should, at least:

(i) describe initial findings; identified risks and proposed risk mitigation measures addressing, among other things, COVID-19 issues; communication procedure;

(ii) update schedule and agenda of group meetings and public consultations as well as outline content of reports;

(iii) include further elaborated work plan as per para 3.02 (ii) above.

(b) Final Inception Report incorporating all Client's comments on the Draft Inception Report. The Final Inception report shall be submitted within two (2) weeks from the receipt of the Client's comments.

(c) A Draft Phase I Report that summarises outputs defined in paragraph 4.01 above, except for the transportation model. The Phase I Report should be submitted not later than four (4) months after the Contract commencement.

The Consultant is expected to hold a stakeholder group meeting at this stage to discuss/validate the findings and recommendations of the Draft Phase I Report with all relevant stakeholders. Comments received at the group meeting, where appropriate, should be incorporated in the Final Phase I Report.

(d) Final Phase I Report incorporating all Client's comments on the Draft Phase I Report. The Final Phase I Report shall be submitted within two (2) weeks from the receipt of the Client's comments.

(e) The transportation model, including software licenses, manuals and technical documentation, should handed over to the Client within seven (7) months after the Contract Commencement.

The transportation model is to be developed though consultative process that implies regular meetings between the Consultant and the Client as well as two workshops to define modelling scope, present the model, draft manuals, documentation and preliminary results and train the Client's representatives to use with the transportation model and application software.

(f) A Draft Phase II Report that summarises outputs defined in paragraph 4.02 above and the Draft Integrated, Sustainable Transport Policy and Strategic Roadmap. The Phase II Report should be submitted not later than nine (9) months after the Contract commencement.

The Consultant is expected to hold a stakeholder group meeting at this stage to discuss the contents of the Draft Phase II Report with all relevant stakeholders. Comments received at the group meeting, where appropriate, should be incorporated in the Final Report;

(g) Final Phase II Report and the Final Integrated, Sustainable Transport Policy and Strategic Roadmap incorporating all Client's comments on the Draft Phase II Report and the Draft Integrated, Sustainable Transport Policy and Strategic Roadmap. The Final Phase II Report and the Final Integrated, Sustainable Transport Policy and Strategic Roadmap shall be submitted within four (4) weeks from the receipt of the Client's comments.

(h) a Draft Final Report describing achievements, deliverables provided, problems encountered and recommendations for future actions to ensure results' sustainability. The Draft Final Report should be submitted within ten (10) months of commencement of services on all work carried out by the Consultant.

(i) The Final Report incorporating the DIPE's comments is to be submitted within one (1) month of the receipt of the DIPE's comments.

(j) Stakeholder group meetings and public consultations in accordance with the agreed work plan. For each of the mentioned events, the Consultant is required to:

(i) Prepare schedules and programmes for stakeholders group meetings and public consultations and agree them with DIPE. The Consultant should propose a series of group meetings and public consultations, including those referred to above, to effectively communicate with the Client and proactively respond to issues that may arise in providing the Services;

(ii) Submit reports and/or other relevant materials in advance to allow sufficient time for the participants of the group meeting and public consultations to familiarise themselves with the provided information and data;

(iii) Prepare reports after each group meeting and public consultation. The reports should contain brief description of the discussions and agreement reached and should be submitted within seven (7) calendar days following the corresponding group meeting and public consultation.

(k) brief monthly progress reports describing the status of the contract activities, including progress achieved, problems encountered and proposed ways forward.

The progress reports should be received by DIPE not later than seven (7) calendar days after the end of each calendar month during the period of the Services.

6.02 All reports and deliverables should be in English.

6.03 All draft and final reports should be submitted electronically in the format(s) agreed by the parties. In addition, the Final Inception Report, the Final Phase I Report, user manuals and technical documentation for the transportation model and application software, the Final Phase II Report and the Final Report formally approved by the Client should be submitted in six (6) printed and bound copies.

There should not be any restrictions for replication of user manuals and technical documentation for the transportation model and application software for internal use by the Client.

6.04 Within twenty-one (21) calendar days from the date of the reports receipt, the DIPE shall review in consultation with relevant stakeholders and:

(a) approve the reports; or

(b) notify the Consultant of any respects in which DIPE considers that the reports do not comply with the contract provisions. The reports shall be revised and submitted to DIPE by the Consultant within two (2) weeks following the receipt of DIPE's comments unless otherwise defined in paragraph 6.01 above.

7. CONSULTING TEAM STRUCTURE AND QUALIFICATION CRITERIA

7.01 The Consultant as a firm/organisation must have experience in:

(a) development of multi-modal, socially-inclusive and gender-responsive, integrated, climate resilient and sustainable transport policies and strategic roadmaps for the implementation of such policies;

(b) strategic transportation and land use planning; transportation demand management and modelling; legal, environmental and financial background research and studies of the transportation sector and public consultations regarding road sector and other transportation;

(c) in implementing similar assignments locally or regionally (especially in small-island countries).

7.02 All of the members of the consulting team must have excellent communication and interpersonal skills and must be fluent in English. The key experts required for the Consultant's team and their minimum qualifications and experience are as follows:

(a) **Key Expert No. 1: Transport Policy Specialist/Team Leader**

(i) Education: A Master's degree (or its equivalent) in a Transportation related discipline such as Transportation Planning/Engineering, Transportation Economics, combined with training in Public Policy or Public Administration.

(ii) Knowledge and Experience: At least fifteen (15) years of relevant professional experience in transport sector analysis, transport policy and strategy, institutional development and sector governance, transport sector reforms, private sector participation and monitoring and evaluation. Demonstrated expertise and technical knowledge in designing transport policies and strategies, transport sector development programmes, and public finance. In-depth technical knowledge of methodologies and techniques for

planning and programming, pricing, economic and safety regulations, sector governance issues, and climate change impacts. The candidate must also have at least five (5) years' experience as a Team Leader working on similar projects and must have performed this role on at least two (2) projects of this size and complexity within the past five (5) years.

(b) **Key Expert No. 2: Infrastructure Specialist**

(i) Education: A degree in civil engineering and professional engineering registration/licensure.

(ii) Knowledge and Experience: At least ten (10) years of relevant professional experience in the planning, design and construction of transport infrastructure and transport services. The candidate must also have previous experience working in developing countries and must have performed this role on at least two (2) projects of this size and complexity within the past five (5) years.

(c) **Key Expert No. 3: Social and Gender Analyst**

(i) Education: An advanced degree in social analysis, social planning, gender analysis or similar.

(ii) Knowledge and Experience: At least ten (10) years of relevant professional experience in the application of qualitative and quantitative methods to the analysis of social and gender issues and factors affecting social development. Living standards and access to services for and the level of service provided to different population groups should be assessed in qualitative and quantitative terms to the extent practicable within the assignment on the basis the differential needs of women and men, the elderly, disabled and the youth with regards to transport. The candidate must have performed this role on at least two (2) projects of this size and complexity within the past five (5) years.

(d) **Key Expert No. 4: Environment, Disaster Risk Management and Climate Specialist**

(i) Education: An advanced degree in environmental science or a related discipline.

(ii) Knowledge and Experience: Policy and planning; environmental impact assessment; disaster risk management; and the climate vulnerability and climate change mitigation and adaptation: The candidate must have performed this role on at least two (2) projects of this size and complexity within the past five (5) years.

(e) **Key Expert No. 5: Public Finance Specialist**

(i) Education: An advanced degree in economics or a closely related discipline.

(ii) Knowledge and Experience: At least ten (10) years of relevant professional experience with analysis of macro-economic policies, analysis of national and sector budgets, budgetary planning and implementation mechanisms, and assessment of public expenditure management. The specialist should also have considerable experience in project costing and financial viability assessment. The candidate must have performed this role on at least two (2) projects of this size and complexity within the past five (5) years.

(f) **Key Expert No. 6: Transport Economist/Modeller**

(i) Education: An advanced degree in transport economics, econometrics or similar discipline.

(ii) Knowledge and Experience: At least ten (10) years of relevant professional experience in transport economics or econometrics. (S)he has good knowledge, and skills in using, transportation modelling software and experience in conducting surveys. The candidate must have performed similar duties for at least two (2) projects of this size and complexity, including transportation modelling, within the past five (5) years.

(g) **Key Expert No. 7: Land Use Planner/Urban Development Specialist**

(i) Education: An advanced degree in urban or regional planning, geography, architecture, engineering or related discipline.

(ii) Knowledge and Experience: At least ten (10) years of relevant professional experience in urban and land use planning/development. The candidate must have performed this role on at least two (2) projects of this size and complexity within the past five (5) years.

8. HUMAN RESOURCES, SCHEDULING AND COSTS

8.01 The expected time input of the key experts is estimated at twenty-eight (28) person-months.

In estimating time input for the key experts and costs of the services and software licenses, the Consultant should ensure that the proposal takes full account of all of the above.

9. COORDINATION AND FACILITIES

9.01 DIPE is the Executing Agency for the Consultancy. The Consultant shall report to DIPE. DIPE will coordinate review by the relevant stakeholders of the reports and deliverables to be submitted by the Consultant.

9.02 For efficient collaboration with the stakeholders, DIPE in consultation with relevant stakeholders will establish a Working Group (WG) consisting of representatives the Department of Economic Development, Transport and Civil Aviation, DIPE, National Council on Public Transportation, National Taxi Union and other public agencies and NGOs as may be necessary.

9.03 DIPE has appointed a Project Coordinator (PC) who is a member of the Special Projects Unit established within DIPE. The PC will facilitate the work of the Consultants and make available all project-related reports and data relevant to completion of the assignment, and will act as liaison between the Consultant, the Caribbean Development Bank, DIPE and the other stakeholders.

9.04 DIPE shall designate counterpart personnel whom the Consultant shall mentor in all aspects of the assignment.

9.05 Office accommodation, including access to the Internet, and conference and meeting facilities in Saint Lucia for experts working on the Contract will be provided by the DIPE.

9.06 The Consultant team members are expected to bring their own computers and arrange local transportation.