

GUYANA
ROAD NETWORK UPGRADE AND EXPANSION PROGRAM

PROJECT PROFILE

I. BASIC DATA

Project name:	Road Network Upgrade and Expansion Program		
Project number:	GY-L1031		
Project team:	Christopher Persaud (TSP/CGY), Team Leader; Carlos Mojica, Rafael Acevedo-Daunas, Nicolas Dei Castelli and Caterina Vecco (INE/TSP); Maria Da Cunha and Steven Collins (VPS/ESG); Roy Parahoo (PDP/CSU); David Ochoa (PDP/CGY); Clevern Liddell (CCB/CGY) and Guillermo Antonio Eschoyez (LEG/SGO).		
Borrower:	Co-Operative Republic of Guyana (GOG)		
Executing agency:	Ministry of Public Works and Communications (MPW&C)		
Financing plan:	IDB (Blend):	US\$	66,200,000
	Local:	US\$	0
	Total:	US\$	66,200,000
Safeguards:	Policies triggered: B.01, B.04, B.05, B.06, B.07, B.10 and B.11; OP-710. Classification: B		

II. GENERAL JUSTIFICATION AND OBJECTIVES

- 2.1 **Background.** Guyana is a thinly-populated country of 761,000 inhabitants with a predominantly agricultural and mining economy. The vast majority of the population lives in the coastal strip. Guyana is one of the poorest countries in the Western Hemisphere with a GDP per capita in 2010 of US\$2,501.70¹. The economy depends on the export of six main commodities (sugar, gold, bauxite, shrimp, timber, rice) which represent almost 60% of the country's GDP, and thus it is susceptible to changes in commodity prices. Efficient transportation is critical to sustain Guyana's competitiveness, and to support production and exports.
- 2.2 The road network of Guyana totals 3,995 km and serves a national fleet of about 80,000 vehicles. The National paved road network, with an extension of 410 km, consists of six main roads of two lanes each. There are just two short segments in the paved network that are four lanes each². In terms of rail, air and water transport infrastructure, Guyana has 98 km of railroads entirely dedicated to ore transport, one international airport, one regional (short range international) airport and 45 additional airstrips with short runways. The country has a single general cargo seaport in Georgetown, 4 specialized bulk loading facilities and relies upon its 6,000 km of navigable water-ways for transporting bulk commodities.
- 2.3 Government responsibilities in the transportation sector are spread among various agencies³, with the Ministry of Public Works and Communications (MPW&C) taking on the main role. The MPW&C is basically responsible for transport policy and the

¹ Bureau of Statistics - Guyana

² Two segments along the East Coast Demerara and East Bank Demerara roads totaling 10km.

³ Ministry of Housing and Water, Ministry of Agriculture, Ministry of Local Government and Municipalities

provision and maintenance of almost all major transport infrastructures. The MPW&C's capacity to perform the function of executing agency has been consolidated over the years with the creation, in 2002, of the Work Services Group (WSG). This unit has evolved to become responsible for all works being undertaken by the MPW&C and is responsible for the planning and management of road investments and maintenance activities.

- 2.4 **The Problem.** Guyana has one of the sparsest road networks in South America with 3,995 km of roads serving a country with 216,000km²; however, due to the concentration of the population and the main road system along the coastal areas, the majority of the population has access to paved roads. Most of the main roads are in fair condition since over the last two decades the GOG has pursued a progressive rehabilitation of the roadways and structures. Nevertheless, there are a few sections of the network which have not been rehabilitated and require extensive maintenance. In addition, traffic congestion on some sections of the main road network has become a major issue due to increases in the country's vehicle fleet and the creation of new housing schemes in the outskirts of Georgetown. Rapid growth of the fleet resulted in 43,000 new registered vehicles in the last seven years, with public transport vehicles and trucks making up approximately 20% of the country fleet and accounting for up to 30 % of the road trips on the main and urban roads. These factors have contributed to congestion along the main roads leading to and from the city, as well as inside the city, as traffic passes through, moving between the east and south corridors. These heavy traffic corridors also experience the most traffic accidents.
- 2.5 *Sheriff-Mandela Avenue:* The Sheriff Street - Mandela Avenue road is a main urban artery that crosses the capital city of Georgetown, connecting the East Coast Demerara Main Road (ECDMR) to the East Bank Demerara Main Road (EBDMR). Additionally, the roadway serves as the principal access to many residential areas in Georgetown. Commercial activity is on the rise along the corridor, creating a chaotic mix of pedestrian and vehicular traffic. Current traffic levels on the road exceed 20,000 vehicles per day with peak periods experiencing 1500 vehicles per hour (vph) (capacity on this type of road is 1320 vph) and the average travel speed being less than 30 km per hour for the entire road with some sections averaging only 15km per hour.
- 2.6 *Access Roads:* New and existing housing schemes outside of Georgetown require access roads to transfer internally generated traffic onto the adjacent main roads. These accesses are commonly two lane roads (between 5m and 6m wide) with little or no provision for pedestrian and bicycle traffic and a single access road is usually shared by two or more housing schemes. Commuters experience traffic congestion during peak hours along the length of the accesses and especially at the intersection with the main roads. The narrowness of these roads and absence of alternatives are the main contributors to traffic congestion and safety problems in the schemes.
- 2.7 *Main Roads:* The main road network is comprised of two lane roads with two 3.3 m wide driving lanes and shoulders varying between 0.0 and 1.5 m wide. These roads have limited road safety features and there are no provisions for pedestrian and bicycle traffic. There is a total of 10km of four lane road consisting of four 3.4 m driving lanes, shoulders and intermittent parking lanes and sidewalks. There are developments and settlements along the side of the main roads and these roads also

- serve industries involved in providing construction materials, manufacturing and food or agriculture processing. The traffic along these roads is a mixture of commuter and truck traffic, and congestion can now be experienced along some sections of the network due to the slow moving trucks, the lack of overtaking opportunities owing to the narrowness of the roadway and friction from parked vehicles, pedestrian and bicycle traffic.
- 2.8 **The Country's Strategy.** The country's strategy for the road subsector consists of i) rehabilitation, improvement and extension of the road network, financed by external resources, and ii) routine maintenance of the rehabilitated network financed by recurrent resources. This strategy aims to reduce transportation costs, improve market access and overall competitiveness, and increase coverage of maintenance activities of main roads, bridges and other infrastructure. The GOG has been actively restoring infrastructure to improve traveling conditions and road safety along public roads and within the context of the US\$83.2 million 2011/2012 bi-annual FSO allocation of resources, 80% has been dedicated to the Transport Sector. Routine Maintenance programs have been successfully implemented with funds from the treasury since 2003, and they involve the private sector through the contracting out of performance-based maintenance activities.
- 2.9 **The Bank's Strategy.** The IDB country strategy with Guyana 2008-2012 (GN-2503-1) supports the Government's vision for accelerating economic growth through economic diversification and targeted social development. This strategy promotes the improvement of the quality and coverage of the road network as a pillar of the strategic infrastructure investments therefore supporting the economic diversification objective. The main areas of focus of the *transport sector interventions* are: (i) develop a balanced transport system; (ii) develop criteria to prioritize projects rationally within a general strategy; (iii) provide for the improvement and the regulation of the transport system; and (iv) improve the performance of the main logistic chains which sustain the economic growth of the country. These interventions, along with the country's sector strategy, aims to improve and expand capacity of the road network, while assuring its technical, financial, socio-environmental and economic sustainability.
- 2.10 **Strategy implementation.** The Bank, following this long-term strategy, has been financing works in the 410 km main road network. The Bank supported this long-term program by means of six prior operations⁴ totaling US\$180m that focused on the rehabilitation of 300 km of the main road network and one for the expansion of a section of road to four lanes between Providence and Diamond. Also, contributions were made towards developing and improving sustainable routine maintenance mechanisms for the entire main road network. Current Bank operations include provisions for works, road safety and maintenance and studies for the upgrading and expansion of the main road and Georgetown city networks.
- 2.11 **The Program.** The Program is a multiple works operation having as its main objective to enhance urban and suburban mobility and safety, by lowering transport costs and reducing accident rates through different interventions. The Program is

⁴ Main Road Rehabilitation Program (GY0005), Bridge Rehabilitation Program – Phase I (GY0026), Mahaica Rosignol Road (GY0056), Moleson Creek – New Amsterdam Road (GY0076), Transport Infrastructure Rehabilitation Program (GY-L1008) and Road Improvement and Rehabilitation Program (GY-L1027).

- divided into four components: (i) *Public works*. This includes the rehabilitation, improvement and construction of roads, construction of sidewalks, bikeways and streets, shoulder widening, construction and rehabilitation of bridges and culverts, incorporation of bus stops, passing lanes and other features to reduce congestion and improve safety (US\$58.2 million); (ii) *Studies and Institutional Strengthening*. These activities include diagnostic and technical analyses, feasibility studies, environmental and social assessment studies, stakeholder engagement, engineering and road safety designs and highway safety audits (US\$2.5 million); (iii) *Road Safety*. This component addresses road safety through education, public awareness, enforcement and inputs to the other components for the design of safety infrastructure, signage, user behavior and preferences, and the like. (US\$0.5 million); and (iv) *Implementation support*. These activities are directly related to the implementation and supervision of the three components of the program, as well as for the conduct of required technical and environmental audits, program evaluations and performance and completion reports. (US\$5 million).
- 2.12 In order for individual projects to be considered eligible for financing under the multiple works Component, they must: (i) have an internal rate of return of at least 12%; (ii) as a functional unit (regardless of what portion the Bank is financing) must be categorized by the Bank according to its safeguard Policies as having minor to moderate environmental and social impacts (Category “B”); (iii) be a road/street under jurisdiction of the MPW&C; (iv) not be supplemental activities related to ongoing projects being financed by the Bank and (v) meet any other requirements agreed between the Bank and the Government and included in the Program regulations.
- 2.13 As a representative sample for the Program, the country has proposed the Sheriff Street – Mandela Avenue Road which has a budget of US\$32.4 million and represents 56% of the Public Work Component. The Program will finance the civil works associated with upgrading and expanding the 7 km Sheriff Street – Mandela Avenue Road, between the ECDMR and the EBDMR. These works would include road rehabilitation and widening, widening or reconstruction of bridges and culverts, construction of parking lanes and sidewalks, bikeways, traffic lights, bus stops, signage and other safety related works along the corridor, as well as any required environmental and social mitigation measures.

III. TECHNICAL ISSUES

- 3.1 **Institutional Capacity.** The MPW&C and the WSG are currently responsible for the implementation of three loan operations and three TCs funded by the Bank. Based on their current work load, the WSG will have to increase its staff capacity in the areas of procurement and planning to implement the proposed Program, while keeping the activities on schedule.
- 3.2 **Studies:** Some of the required studies, including technical, economic, and socio-environmental feasibility, stakeholder engagement, and engineering designs and management plans for the preparation of works are being financed from three TCs, ATN/SF-11841, ATN/OC-11842-GY and ATN/OC-13098-GY and LO 2454/BL-GY. Annex IV provides details and Component 2 will include additional resources for preparatory work for individual projects.

IV. SAFEGUARDS AND FIDUCIARY SCREENING

- 4.1 **Fiduciary:** As part of the movement towards country systems in Guyana, this project will follow on the successes of LO 2102/BL-GY and LO 2215/BL-GY by utilize GOG's accounting system IFMAS as its accounting and reporting software. The MPW&C will be required to establish and maintain adequate accounting controls and records and prepare and submit annual financial statements audited by the Audit Office of Guyana. Given the importance of this task, the MPW&C must ensure that personnel with accounting and/or audit experience are retained.
- 4.2 **Environment.** The Road Network Upgrade and Expansion Program will have positive environmental impacts and improve social and economic conditions for residents and businesses in the project areas. However, widening the Sheriff Street – Mandela Avenue roadway and the main roads without generating major disruption of traffic and impacts on residents, businesses and road users will be a challenge. The lack of adequate and continuous parallel roads and the frequency of entrances to businesses and residences in some areas will require the adoption of a detailed construction program and a traffic management plan to provide transportation alternatives during project implementation as well as measures to minimize nuisances and provide for alternative access or compensate for access restrictions. Overall, adverse environmental impacts are deemed to be mostly moderate and largely temporary, given that the area has been subject to human intervention and does not include any ecologically important sites within the area of influence of the project. The expected impacts are related to civil construction, are well known and readily manageable with adequate mitigation.
- 4.3 The Environmental and Social Strategy (ESS) for this operation (Annex 3) focuses on evaluating the results of the Environmental and Social Impact Analysis (ESIA), including the stakeholder engagement process, for the Sheriff-Mandela project site that will identify baseline conditions and project them to the future, identify impacts and define environmental and social management programs to address, correct, prevent and mitigate any negative consequences that might arise. An Environmental and Social Management Plan, including a Location Impact Mitigation plan to address localized social impacts will be prepared to address all the issues that are identified by the ESIA and by the stakeholder consultation process, in order to ensure compliance with local regulations and Bank policies and safeguards.
- 4.4 In addition, the ESS will focus on establishing a management framework of environmental and social eligibility and selection criteria, evaluation and consultation requirements, management measures, and monitoring and reporting arrangements, similar to those envisioned for the sample project described above, to identify and manage the environmental and social aspects of each proposed individual project so that they meet all applicable requirements of Bank Safeguard Policies(OP-703, OP-710 and OP-102).

V. RESOURCES AND TIMETABLE

- 5.1 The expected dates for the distribution of the Proposal for Operation Development (POD) distribution will be by April 2012 and the submission to the Board will be by June 27, 2012. The cost preparation for consulting studies will be approximately US\$56,000; and administrative cost for four missions US\$42,440. Annex V provides details.

Banco Interamericano de Desarrollo (BID)

ANEXO CONFIDENCIAL
CONFIDENTIAL ANNEX

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SAFEGUARD SCREENING FORM

Project Details	IDB Sector	Transportation
	Type of Operation	Investment Loan
	Country	Guyana
	Investment Checklist	Infrastructure Road and Rail
	Team Leader	Persaud, Christopher (CHRISP@iadb.org)
	Project Title	Road Network Upgrade and Expansion Program
	Project Number	GY-L1031
	Safeguard Screening Assessor(s)	Persaud, Christopher (CHRISP@iadb.org)
	Assessment Date	2012-02-22
Additional Comments		

Project Classification Summary	Project Category: B	Override Rating:	Override Justification:
	Conditions/ Recommendations	<input type="checkbox"/> Category "B" operations require an environmental analysis (see Environment Policy Guideline: Directive B.5 for Environmental Analysis requirements). <input type="checkbox"/> The Project Team must send to ESR the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports. <input type="checkbox"/> These operations will normally require an environmental and/or social impact analysis, according to, and focusing on, the specific issues identified in the screening process, and an environmental and social management plan (ESMP). However, these operations should also establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.) where necessary.	Comments:

Summary Of Impacts/Risks And Potential Solutions	Identified Impacts/Risks	Potential Solutions
	The project will or may require involuntary resettlement and/or economic displacement of a minor to moderate nature (i.e. it is a direct impact of the project) and does not affect indigenous peoples or other vulnerable land based groups.	Develop Resettlement Plan (RP): The borrower should be required to develop a simple RP that could be part of the ESMP and demonstrates the following attributes: (a) successful engagement with affected parties via a process of Community Participation; (b) mechanisms for delivery of compensation in a timely and efficient fashion; (c) budgeting and internal capacity (within borrower's organization) to monitor and manage resettlement activities as necessary over the course of the project; and (d) if needed, a grievance mechanism for resettled people. Depending on the financial product, the RP should be referenced in legal documentation (covenants, conditions of disbursement, project completion tests etc.), require regular (bi-annual or annual) reporting and independent review of implementation.

	<p>Generation of solid waste is moderate in volume, does not include hazardous materials and follows standards recognized by multilateral development banks.</p>	<p>Solid Waste Management: The borrower should monitor and report on waste reduction, management and disposal and may also need to develop a Waste Management Plan (which could be included in the ESMP). Effort should be placed on reducing and recycling solid wastes. Specifically (if applicable) in the case that national legislations have no provisions for the disposal and destruction of hazardous materials, the applicable procedures established within the Rotterdam Convention, the Stockholm Convention, the Basel Convention, the WHO List on Banned Pesticides, and the Pollution Prevention and Abatement Handbook (PPAH), should be taken into consideration.</p>
	<p>Likely to have minor to moderate emission or discharges that would negatively affect ambient environmental conditions.</p>	<p>Management of Ambient Environmental Conditions: The borrower should be required to prepare an action plan (and include it in the ESMP) that indicates how risks and impacts to ambient environmental conditions can be managed and mitigated consistent with relevant national and/or international standards. The borrower should (a) consider a number of factors, including the finite assimilative capacity of the environment, existing and future land use, existing ambient conditions, the project's proximity to ecologically sensitive or protected areas, and the potential for cumulative impacts with uncertain and irreversible consequences; and (b) promote strategies that avoid or, where avoidance is not feasible, minimize or reduce the release of pollutants, including strategies that contribute to the improvement of ambient conditions when the project has the potential to constitute a significant source of emissions in an already degraded area. The plan should be subject to review by qualified independent experts. Depending on the financial product, this information should be referenced in appropriate legal documentation (covenants, conditions of disbursement, etc.).</p>
	<p>Safety issues associated with structural elements of the project (e.g. dams, public buildings etc), or road transport activities (e.g. increase in heavy vehicle movements, transport of hazardous materials, etc.) exist which could result in moderate health and safety risks to local communities.</p>	<p>Address Community Health Risks: The borrower should be required to provide a plan for managing risks which could be part of the ESMP; (including details of grievances and any independent audits undertaken during the year). Compliance with the plan should be monitored and reported. Requirements for independent audits should be considered if there are questions over borrower commitment or potential outstanding community concerns.</p>
	<p>The project will mobilize personnel foreign to project zones and the borrower does not have a code of conduct or internal practices/rules prohibits the interaction with the local communities.</p>	<p>Ensure the borrower addresses Health and Community Safety: The borrower will deliver a code of conduct for his employees, contractors and subcontractors including clauses specifying those employees, contractors and subcontractors not to interact and relate with the local communities</p>

	Project construction activities are likely to lead to localized and temporary impacts (such as dust, noise, traffic etc) that will affect local communities and workers but these are minor to moderate in nature.	Construction: The borrower should demonstrate how the construction impacts will be mitigated. Appropriate management plans and procedures should be incorporated into the ESMP. Review of implementation as well as reporting on the plan should be part of the legal documentation (covenants, conditions of disbursement, etc.).
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Assessor Details	Name of person who completed screening:	Persaud, Christopher (CHRISP@iadb.org)
	Title:	
	Date:	2012-02-22

SAFEGUARD POLICY FILTER REPORT

Project Details	IDB Sector	Transportation
	Type of Operation	Investment Loan
	Investment Checklist	Infrastructure Road and Rail
	Team Leader	Persaud, Christopher (CHRISP@iadb.org)
	Project Title	Road Network Upgrade and Expansion Program
	Project Number	GY-L1031
	Safeguard Screening Assessor(s)	Persaud, Christopher (CHRISP@iadb.org)
	Assessment Date	2012-02-22
	Additional Comments	

Safeguard Policy Filter Results	Type of Operation	Loan Operation	
	Safeguard Policy Items Identified (Yes)	Potential disruption to people’s livelihoods living in the project's area of influence (not limited to involuntary displacement, also see Resettlement Policy.)	(B.01) Resettlement Policy– OP-710
		The Bank will make available to the public the relevant Project documents.	(B.01) Access to Information Policy– OP-102
		The Borrower/Executing Agency exhibits weak institutional capacity for managing environmental and social issues.	(B.04)
		The operation may be of higher risk due to controversial environmental and associated social issues or liabilities.	(B.04)
		An Environmental Assessment is required.	(B.05)
		Consultations with affected parties will be performed equitably and inclusively with the views of all stakeholders taken into account, including in particular: (a) equal participation of women and men, (b) socio-culturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups.	(B.06)
		The Bank will monitor the executing agency/borrower’s compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.	(B.07)

		The operation has the potential to pollute the environment (e.g. air, soil, water, greenhouse gases...).	(B.11)
	Potential Safeguard Policy Items(?)	No potential issues identified	
	Recommended Action:	Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.	
	Additional Comments:		

Assessor Details	Name of person who completed screening:	Persaud, Christopher (CHRISP@iadb.org)
	Title:	
	Date:	2012-02-22

ENVIRONMENTAL AND SOCIAL STRATEGY

I. Project Description

- 1.1 In the last two decades, the Bank has been a permanent partner of Guyana in the development of the road infrastructure of the country. The primary road network has been subject to continuous improvement and, with the Bank's help, Guyana has established an adequate system for maintenance, allocating resources from the national budget on a yearly basis. The country is interested in expanding the capacity of its road network and intends to allocate a substantial portion of the available FSO resources to the program, which has been identified by the government as one of highest priority.
- 1.2 The program is one of great importance to improve the conditions of the country's roads due to the sharp increase in vehicular traffic and congestion. This will be done through interventions in road infrastructure through a multiple works program. As a sample for this operation, the expansion of the Sheriff Street – Mandela Avenue roadway in Georgetown has been selected, given it has undergone technical studies and was deemed environmentally and socially feasible as long as adequate management plans are defined for its implementation. Other projects to be undertaken are being defined by the GOG and a list will be available for project document preparation. In order for any project to be eligible, certain conditions are to be met as follows: (i) all projects shall have a classification of Category "B" as established by the Bank's safeguards¹; (ii) the projects must be feasible from a social, economic, environmental and technical point of view; and (iii) projects must be under the jurisdiction of the MPW&T.

II. Institutional And Regulatory Context

- 2.1 The Environmental Protection Authority (EPA), established under the Environmental Protection Act, promulgated in 1996, is the institution with the mandate for coordinating environmental management. The purpose of the Act is to provide for the management, conservation, protection and improvement of the environment, the prevention and control of pollution, the assessment of the impact of economic development on the environment and the sustainable use of natural resources. There are no strict guidelines or regulations in Guyana to determine which projects require an Environmental Impact Assessment (EIA), an Environmental Analysis (EA), or other type of environmental documentation before licenses are granted.
- 2.2 Criteria will be established by the Bank to determine whether an Environmental and Social Impact Assessment Study (ESIA) will be required for individual projects proposed under the Program. Minimally, an Environmental Analysis (EA) will be prepared for

¹ Category "A" projects are excluded

each project proposed under the Program, as part of the Feasibility Study. The ESIA (or EA) process will abide by the consultation requirements with potentially affected parties as defined in IDB's policies and directives, specifically B.6 Consultations. This will include consultation at the scoping phase, and after completion of a draft ESIA (or EA) which will be made publically available for a comment period commensurate with the size and scope of the proposed project. The consultation processes will also include cottage meetings or other mechanisms that facilitated access by directly affected stakeholders.

III. Environmental And Social Setting

Specific Issues related to the Sheriff Street – Mandela Avenue Roadway

- 3.1 This urban roadway is 7.1 km long and passes through the city of Georgetown intersecting in the north with the East Coast Demerara Main Road and in the south with the East Bank Demerara Main Road. The road has four categories of occupation and usage, these are; 1.3km of residential, vacant land and public spaces; 1.4km of residential property mixed with commercial business; 1.3 km of concentrated commercial business mixed with private residential property and 3.1km with industrial lands on one side of the road and residential and a few commercial properties on the other side. The Right of Way (ROW) is largely clear of occupations save for four small shops at KM 2+900 which are located along a section of the roadway where the ROW is sufficient to avoid relocation. These shops are illegally occupying the reserves and the MPW&T indicated it is considering relocating the shops to a location 500 meters away from their current location on the same road corridor. With regards to public transportation Sheriff Street – Mandela Avenue forms part of three mini-bus routes serving different sections of Georgetown.
- 3.2 The users of the road are diverse and all have to be taken into account in the design solution. The designs will include bicycle lanes, pedestrian sidewalks, and road crossings. Motorized traffic would benefit from additional driving lanes, parking and loading/offloading lanes in commercial areas and bus stops along bus routes.
- 3.3 Construction along the corridor would result in some level of disruption to commercial activity and traffic flow. A Traffic Management Plan, Social Engagement Plan, Grievance Mechanism, and Stakeholder Committee would form part of the execution tools to mitigate the impacts of the construction works. Mitigation measures for any identified temporary impacts during construction and/or permanent impacts during operation, such as disruption to business access, will also be contemplated in a Location Impact Management Plan which will provide support for businesses which may have to be partially or fully relocated, temporarily closed or significantly disrupted. The scope of this plan will be specifically defined in the final design stage taking into account the Stakeholder Engagement process and an analysis of individual cases, and is expected to

affect only a limited number of businesses.

Specific Issues related to the access roads

- 3.4 New and existing housing schemes outside of Georgetown require access roads to transfer internally generated traffic onto the adjacent main roads. These accesses are commonly two lane roads (between 5m and 6m wide) with little or no provision for pedestrian traffic and shared access by one or more housing schemes. The narrowness of these roads and absence of alternatives, as well as unregulated parking are the main contributors to traffic congestion and safety hazards in the housing schemes.
- 3.5 The current access roads do not have provisions for pedestrians, bicycles nor hard shoulder for parking or stopping. Drainage canals along the streets present an additional challenge creating additional restrictions to road widening and generating hazards for pedestrians and motorized transit. In addition, road safety infrastructure such as road markings, lighting and signage is poor. Stakeholders in the housing schemes will be involved through a public consultation process to identify their concerns and provide feedback on how these concerns were addressed. The access road improvement under this program will take the safety shortcomings and stakeholder concerns into consideration in producing the design solution. Execution tools similar to those contemplated in par. 3.4, above, will be applied to this project with the adjustments appropriate for its scope.

Specific Issues related to the main roads

- 3.6 The GOG has identified the East Bank Demerara Main Road as a project for possible funding under the program. The road corridor is occupied along the entire route and there is no space in some sections to allow for a four lane road within the right of way. In particular, the Grove area borders the existing road and there is no space to allow for four lanes with all the required services and facilities. The section of road just south of Grove is only a few meters away from the Demerara River and under threat of severe erosion. These spatial restrictions make it impossible to widen the road to four lanes in this section. It will thus be necessary to study and have public consultations on different solutions that address these limitations, including the possibility of building an alternate parallel two lanes road in the Diamond/Grove areas. This will serve the purpose of increasing the capacity of the whole road and will also improve access to the new urban developments. From a technical standpoint, there are at least two additional stretches of the EBDMR which are under threat of erosion from the river. The EBDMR will not be eligible for funding under the present Program unless feasibility studies, complemented by an ESIA and a stakeholder engagement process², identify a suitable alternative that: (i) reduces encroachment; (ii) is technically, environmentally and socially feasible and reduces the necessity for resettlement, (iii) has only minor to moderate environmental and

² Including participation by the Multi-stakeholder committee created for this purpose.

social impacts (and is classified as a Category B project by the Bank).

- 3.7 The Program will also allocate resources for studies aimed at ensuring that the projects that are proposed for funding meet the eligibility criteria by supporting the preparation of final EAs, ESIAAs, and feasibility and design studies. The Program will also fund a comprehensive urban transport study for Georgetown, Road Safety studies and audits, as well as educational programs and other studies aimed at sustainable transport, universal access and complementary topics, including land use planning along key transportation corridors.

IV. Key Potential Environmental And Social Impacts And Risks

- 4.1 The program will have significant positive impacts and will benefit a large number of people by reducing congestion and loss of time, reducing air pollution and accidents, and improving conditions for economic development, among others.
- 4.2 The potential negative impacts related to the project can be grouped into two different categories: i) temporary, related mostly to construction activities; and ii) permanent, related to land use changes and possible relocation of homes and businesses or restrictions of access and functionality.
- 4.3 Temporary environmental impacts from construction activities include traffic congestion due to the presence of construction equipment, potential air and water pollution issues related to transportation and construction practices, noise generation around inhabited areas, potential contamination of soils in campsite facilities and workshops, health and safety issues, the potential for accidents, the disturbance of alternate roads to be used during construction as by-passes, etc. All of these impacts are easily identifiable; minor to moderate in magnitude; temporary in duration; spatially restricted; preventable or controllable with widely available, technically simple and cost-effective mitigation techniques; and reversible in the sense that an affected area can return to its pre-existing condition after an impact occurs. Mitigation activities can be included in an environmental management plan specifically designed for the affected areas. Temporary social impacts include nuisance from traffic, noise, air and dust emissions, as well as disruption of daily routines and potentially of business activities and services. Temporary disruptions that may become permanent or cause permanent impacts or non-recoverable losses need to be identified so they can be mitigated and compensated.
- 4.4 Permanent social and environmental impacts are likely to arise to the extent homes or businesses need to be partially or fully relocated or are affected by conditions that change their value, or impair their access or other functional characteristics. Easier access and changes in traffic pattern during the operation of the new roads may also result in changes in land use (densification, gentrification, and shifts between agricultural,

industrial and residential uses) that can have environmental and social impacts especially if underlying tenure and land use planning frameworks are weak.

- 4.5 Traffic Safety during and after construction is a major concern given the current congested state of some roads and intersections, lack of appropriate ancillary facilities, absence or poor enforcement of traffic rules, and deficiencies in safety awareness and education of drivers and other road users.

V. Environmental And Social Due Diligence Strategy

5.1 The project team proposes the following socio-environmental strategy to ensure the sustainability of the program:

- a) Carry out an Environmental and Social Analysis (ESA) of the Program as a whole so that a management framework can be set up to provide for Environmental and Social Impact Assessments (ESIA) or other environmental and social studies as appropriate of each particular project, in accordance with Terms of Reference to be approved by the Bank, ensuring analysis of design alternatives that take into account environmental and social factors and compliance with local regulations and Bank Policies, prior to the call for bids for each project and/or any disbursement in respect thereof;
- b) Development of an Environmental and Social Management Framework for the Program, setting up: (i) project selection criteria, environmental and social assessment and consultation requirements for individual projects, and implementation, supervision and reporting arrangements of the resulting environmental and social requirements for each project; and (ii) Program level initiatives with respect to traffic safety and road regulations as found necessary to improve traffic conditions and community safety at the project level or at a broader scale where feasible and appropriate.
- c) Under the framework described in b), development of an Environmental and Social Management Plan (ESMP) including preventive and mitigating measures, monitoring, supervision and contingency programs, as well as general and specific environmental specifications for each selected eligible project;
- d) For any and all relocation requirements, the development and implementation of a resettlement plan that will comply with the Bank's OP-710 Involuntary Resettlement Policy. The development and implementation of any such Resettlement Plan(s) (RP) of the affected population, will be required to be coordinated with the final engineering designs, and presented to the Bank for approval as a condition prior to the Bank's no objection to the bidding documents for construction works and engineering supervisory services, as well as of construction and supervisory contracts;

- e) Allocation of necessary financial resources of the loan to ensure there is adequate implementation, follow-up and control of all necessary environmental and social mitigation and management activities;
 - f) The retaining of a project supervision firm to support the WSG staff in monitoring construction activities, including independent supervision of environmental and social measures; and
 - g) A reporting system and Bank supervision framework to ensure adequate compliance.
- 5.2 The Environmental and Social Due Diligence (ESDD) will include a site visit, review of existing documentation of each project, and review of institutional capacity in order to ensure that the environmental and social assessments at the Program and project levels will include the requirements necessary to evaluate the potential impacts and risks resulting from the construction and operation phases of the projects, and operation and closure of materials extraction and disposal sites, and will specifically address the following:
- OP-703 Directive B.2 – Country Laws and Regulations: Assess program and project compliance with applicable country (e.g., national, provincial, municipal) environmental, social, and health and safety regulatory requirements (e.g., laws, regulations, standards, permits, authorizations, applicable international treaties/conventions) and recommend any measures needed if non-compliances are identified.
 - OP-703 Directive B.5 – Environmental Assessment Requirements: Require that each project ESA or ESIA:
 - Consolidate the environmental and social impact assessment of all project components, including a cumulative impacts assessment.
 - Evaluate potential impacts from project facilities, ancillary facilities and relocation/resettlement activities.
 - Evaluate effects of each road project on land use changes in the short and long runs.
 - Evaluate project effects on the nearby environment (surface and ground water, soil, air quality) both during construction and operation.
 - Characterize the populations in the road corridor (direct and indirect areas of influence) and identify the presence of any vulnerable groups and the specific needs of different road users and nearby residents, and clearly document potential impacts and proposed mitigation measures.
 - Propose adequate environmental and social mitigation measures and monitoring, considering their completeness, sufficiency of detail, feasibility, cost, definition of

responsibilities, schedule, and quality control.

- Present adequate health and safety plans and procedures for project-specific health and safety risks (with particular attention to traffic and pedestrian safety), adequate level of training to be performed, and sufficient resources to be made available to ensure adequate implementation.
 - Present a project ESMP including key indicators and requirements for environmental and social performance during project execution and operation.
 - Provide for Contractors' and Operators' environmental, social and health and safety management systems for all Project phases that are reasonably consistent with ISO 14001 and OSHA 18001 (for environment and health and safety, respectively).
 - Propose program and project level traffic safety measures to be incorporated in each project or in a Program level Traffic Safety Program.
- OP-703 Directive B.6 – Consultations: Require that for each project, the Borrower: (i) conduct project-related public consultations and disclosure, document stakeholder concerns and how these have been accounted for in the project design or proposed mitigation measures; (ii) provide for adequate ongoing information disclosure and public consultation with the affected population and key stakeholders; and (iii) document the establishment of a grievance mechanism for the Program.
 - OP-703 Directive B.9 – Natural Habitats and Cultural Sites:
 - Natural Habitats – verify and document that no critical or sensitive natural habitats will be affected and identify any natural areas that may require conservation or mitigation measures; Establish selection criteria to exclude projects that might have significant impacts on critical habitats and to select alternatives that minimize impacts on natural habitats.
 - Cultural Sites – verify whether any cultural or historical sites are present in the project corridor and determine if consultation with local authorities and/or chance find procedures are needed
 - OP-703 Directive B.10 – Hazardous Materials: assess the need for and scope of hazardous materials disposal plans and contingency plans (e.g., emergency and spill control plans), including confirmation that all relevant project-specific environmental risks have been identified, proper procedures have been developed, and sufficient resources will be made available to ensure adequate implementation.
 - OP-703 Directive B.11 – Pollution Prevention and Abatement: identify emissions and potential risks of contamination and the mitigation measures and standards that the

projects will have to meet.

- OP-710 Involuntary Resettlement: Establish selection criteria to exclude from the program any projects that would require significant resettlement activities. Prepare guidelines for project specific Resettlement (Action) Plans consistent with IDB's OP-710 Involuntary Resettlement Policy that ensure that each project will: (i) prepare a social baseline for potentially physically and economically displaced people and communities; (ii) develop or set the criteria to develop a project census to accurately inventory the number of people affected by the project; (iii) develop guidelines for the preparation and implementation of Location Impact Management Plans designed to mitigate or compensate the impacts of disruption (temporary or permanent) of economic and livelihood activities.
- 5.3 At the end of the ESDD, the Bank will prepare an Environmental and Social Management Report (ESMR) summarizing the results of the due-diligence and establishing the environmental, social, and health and safety measures that are necessary to ensure that the Program and the projects it finances will comply with the Bank's environmental and social safeguards, including: (i) selection criteria to ensure that projects that the Bank would classify in category A are excluded from the Program; (ii) guidelines for the final TOR for the ESA or ESIA of each Project and for the respective consultation process in accordance with the requirements outlined in par. 5.2; (iii) provisions to ensure that the environmental and social studies required for each project are completed in a timely manner and evaluated by the Bank, and that their results are incorporated in the Program and in each project as applicable and; (iv) basic commitments, standards, indicators and reporting requirements each project and the Program will have to meet to ensure adequate socio-environmental performance.

INDEX FOR COMPLETED AND PROPOSED SECTOR WORK

Description	Funding	Expected Dates	References & hyper links to Technical files
Sheriff Street – Mandela Avenue Road: <ul style="list-style-type: none"> • Economic feasibility and technical analysis, Preliminary design • ESMP, SEP • Final Designs 	Financed by the Bank (ATN/SF-11841-GY & ATN/OC-11842-GY)	Q4 2011 Q2 2012 Q2 2012	
East Bank Demerara Road and Diamond Accesses: <ul style="list-style-type: none"> • Economic feasibility and preliminary technical designs • ESIA 	Financed by the Bank (GY-T1078)	Q3 2012	
East Bank Demerara Road and Diamond Accesses: <ul style="list-style-type: none"> • Final Designs, ESMP, SEP 	Financed by the Bank (LO 2454/BL-GY)	Q2 2013	
SECI - Institutional analysis/personnel, procedures other aspects of implementation capacity.	Funded with Project Preparation Administrative Resources	Q1 2012	
Social and environmental safeguards	See Annexes II and III	-	