PUBLIC

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

GUYANA

PROGRAM TO SUPPORT CLIMATE RESILIENT ROAD INFRASTRUCTURE DEVELOPMENT

(GU-L1081)

PROJECT PROFILE

This document was prepared by the project team consisting of: Pablo Guerrero (INE/TSP), Team Leader; Tatiana Kopelman (CSD/HUD) and Evan Cayetano (INE/WSA), Alternative Team Leaders; Chris Persaud, Alana Fook, Agustín Oseguera, Elisa Puga, Laureen Montes, and Jesús Calderón (INE/TSP); Patricia Henríquez and Jodi Johnson (VPS/ESG); María Escovar (CSD/RND); Clevern Liddell and Ravena Gildharie (CCB/CGY); Lucas Hoepel (CCB/CSU); Yamilee Payen and Nalini Shiwram-Kulpa (VPC/FMP); Carlos Rodrigues (INE/WSA); Mónica Centeno and Natalia Almeida (LEG/SGO); Gabriel Filc (SPD/SDV); and Sizwe Jackson (consultant).

PROJECT PROFILE

GUYANA

I. BASIC DATA

Project Name:	Program to Support Climate Resilient Road Infrastructure Development		
Project Number:	GY-L1081		
Project Team:	Pablo Guerrero (INE/TSP), Team Leader; Tatiana Kopelman (CSD/HUD) and Evan Cayetano (INE/WSA), Alternative Team Leaders; Chris Persaud, Alana Fook, Agustín Oseguera, Elisa Puga, Laureen Montes, and Jesús Calderón (INE/TSP); Patricia Henríquez and Jodi Johnson (VPS/ESG); María Escovar (CSD/RND); Clevern Liddell and Ravena Gildharie (CCB/CGY); Lucas Hoepel (CCB/CSU); Yamilee Payen and Nalini Shiwram-Kulpa (VPC/FMP); Carlos Rodrigues (INE/WSA); Mónica Centeno and Natalia Almeida (LEG/SGO); Gabriel Filc (SPD/SDV); and Sizwe Jackson (consultant)		
Borrower:	The Co-operative Republic of Guyana		
Executing Agency:	Ministry of Public Works (MoPW)		
Financial Plan:	IDB (OC):	US$	100,000,000.00
	Local Counterpart:	US$	15,000,000.00
	Total:	**US$**	**115,000,000.00**
Safeguards:	Policies:	ESPS 1; ESPS 2; ESPS 3; ESPS 4; ESPS 5; ESPS 9; and ESPS 10	
	Classification:	B	

II. GENERAL JUSTIFICATION AND OBJECTIVES

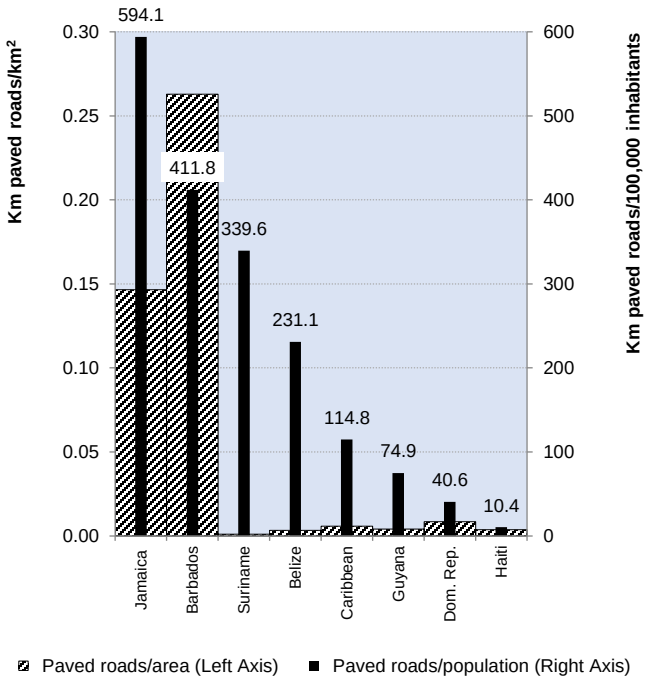
A. BACKGROUND AND JUSTIFICATION

2.1 Since the discovery of offshore oil and gas, there has been dramatic economic growth and transformation in Guyana with the country's Gross Domestic Product (GDP) increasing from US$6.6 billion in 2019 to US$9.37 billion in 2021. In 2020, GDP grew by 43.5% and is expected to grow by 36.2% until 2023[1]. This has manifested in a marked increase in economic activity including a construction boom. This phenomenon allows the Government of Guyana (GoG) to embark on an investment effort to expand, upgrade, and revamp infrastructure, which in the case of transport consists of interventions in critical coverage, capacity, and quality upgrades of its road network, which includes rehabilitation, improvement, maintenance, as well as strengthening the capacities of the authorities.

[1] IMF – World Economic Outlook (10/2021).

2.2 According to the Global Competitiveness Index (GCI), out of 140 economies, Guyana ranks 104th in road infrastructure, 87th in port infrastructure, and 93rd in air transport infrastructure. Sales to main export destinations are hampered because shipping costs in and out of the country[2] are high relative to other countries. Guyana has one of the sparsest road networks in South America with 3,995 km of roads serving a country with 214,970 km^2 resulting in a road network density of 18.5 km per 1,000 km^2. The national paved road network, with an extension of 410 km, consists of six main roads, which represent 10% of the country's road total network. Recent evidence indicates that only 30% of people living in rural areas have access to all-weather roads[3]. According to the road index developed by the

Figure 1. Infrastructure Road Density in the Caribbean



Source: IDB Freight Transport and Logistics Yearbook.

Bank (see Figure 1), the small percentage of paved roads and the low-road density are the two factors most strongly influencing its low position in the ranking.

2.3 IDB's commissioned State of Guyana's Infrastructure[4] also identifies the need to increase land connections between rural communities and between coastal areas and the interior of the country, as well as comprehensive climate-resilient infrastructure. The report calls for the country to develop its aging infrastructure in

---

2 The truck supply relative to port volume in Guyana is low when compared with other Caribbean countries. Guyana is 12.18 while The Bahamas is 203.79 and Jamaica is 95.59. IDB Freight Transport and Logistics Yearbook.

3 Other countries have higher coverage relative to both surface area and population. For example, the Dominican Republic: 1.98 km/1,000 inhabitants, 0.41 km/km^2; El Salvador: 1.75 km/1,000 hab., 0.48 km/km^2; Honduras: 3.34 km/1,000 hab., 2.31 km/km^2; and Nicaragua: 3.92 km/1,000 hab., 1.64 km/km^2.

4 Castalia, 2021.

so it can improve the standard of living and mitigate the increasing risks associated with climate change.

2.4 The Ministry of Public Works (MoPW) is responsible for all public works matters in the country. The Ministry also performs project management functions regarding all government and government-sponsored development projects nationwide.

2.5 **Climate resilience and adaptation.** Transportation infrastructure in coastal, lowland[5], riverain areas, and in the Hinterland is increasingly at risk of high-water events in Guyana, including flooding of rural and agricultural roads during extreme rainfall events. According to the Disaster Risk Assessment in Georgetown (IADB et al. 2019) the expected annual damage from flooding is around US$6 million with a further US$3 million for infrastructure repairs.

2.6 **Non-revenue water.** A recent study by the Bank concluded that utilities in the Caribbean have sufficient infrastructure to supply drinking water but highlights Non-Revenue Water (NRW) — or the difference between the amount of water that enters the distribution system and the amount of water that is billed—as Caribbean utilities' biggest challenge. In the case of Guyana's network along with the East Bank of Demerara (EBD), the study highlights the importance to implement NRW reduction projects such as the replacement of aging water infrastructure. In recent years Guyana improved water quality and the continuity of service to the population through the construction of three water treatment plants financed by the Bank (3242/OC-GY, 3243/BL-GY).

2.7 **Low Carbon Development Strategy (LCDS)[6].** Guyana has the second-highest percentage of forest cover on earth and seeks to sustain 99.5%. The country has embarked on implementing a LCDS creating incentives for a low-carbon economy while protecting against climate change and biodiversity loss through climate adaptation and resilience. Successful implementation of the strategy relies on the country's ability to properly support areas of growth aimed at modernizing metropolitan connections, prioritizing utility replacement, non-motorized and pedestrian infrastructure, and enabling citizens to travel without limitations connecting all areas of the country.

2.8 The LCDS sets the foundation for the Road Transport Investment Programme which seeks to address the road corridors that run parallel to the Atlantic and parallel to the Demerara River and the connection to Brazil via the Linden-Lethem Road, connecting the two main airports. The first phase of 7.7 km from Ogle, East Coast Demerara to Eccles, East Bank Demerara (joining the two corridors) for an estimated value of US$100 million funded by the Government of India is expected to commence in 2022. Additionally, the Islamic Development Bank is financing the 80 km rehabilitation of the Linden Soesdyke Highway. The Caribbean Development Bank is financing the 122 km US$190 million Linden to Mabura Road. Furthermore, in 2022 US$73 million from the national budget will improve roads in all the 10 administrative regions in the country.

---

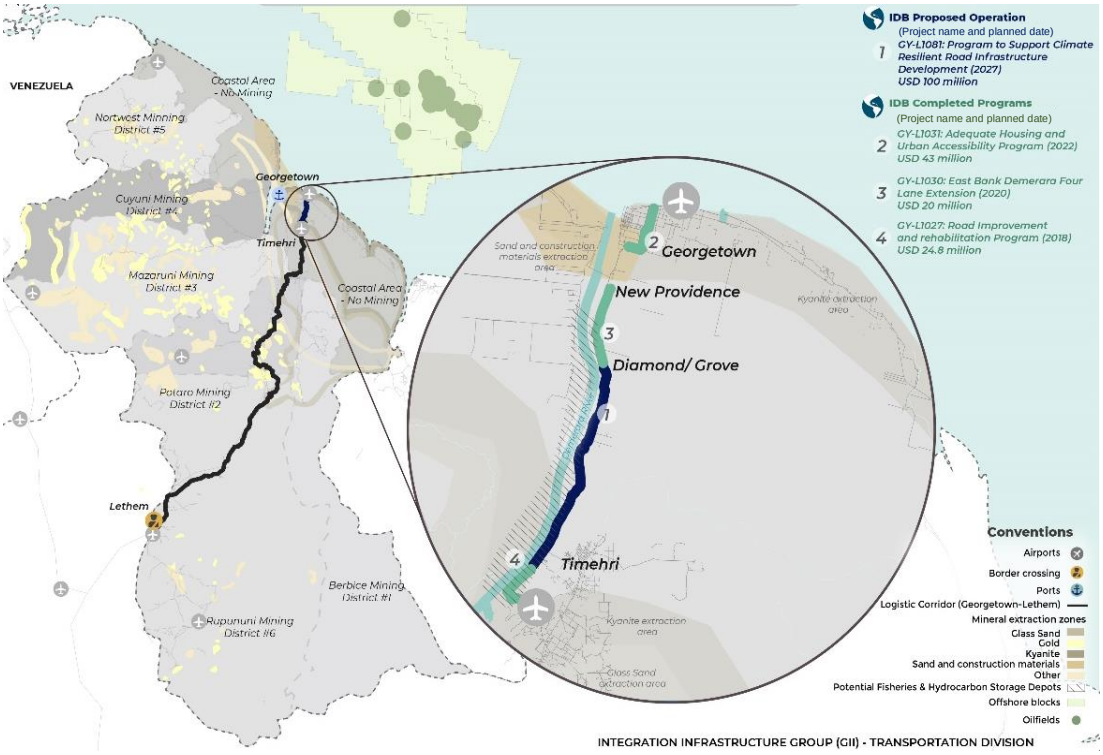
[5] The 425 km Guyana low-lying coastline represents 7% of Guyana's total area but supports 90% of the population. The coastal area lies below the mean high-tide level and floods seasonally, largely due to intense rainfall and sea-defense failure.

[6] www.lcds.gov.gy

2.9 In the renewable energy sector, the Bank has successfully implemented programs[7] and strategies oriented to contributing to Guyana's Nationally Determined Contributions (NDC).

2.10 **Road safety.** Despite low road coverage, the number of road deaths is 138 per 100,000 population, higher than the Caribbean average of 82 (WHO, 2015). In the past five years, more than 100,000 new vehicles were registered in the country with 1,176 vehicles occurring every month[8]. This sharp increase in the number of vehicles on the road has resulted in more frequent incidents and roads becoming congested.

Figure 2. Freight Logistic Corridor Lethem-Georgetown



Source: IDB-2021.

2.11 **Identification of the problem.** Despite the recent increase in investment in Guyana's road sector, a number of problems still persist: (i) low density and lack of availability of climate resilient road infrastructure in good condition[9], as well as limited land connections with cities along the coast and in the interior of the country, which affect access to/from the various production centers and raise transport costs; (ii) increased losses of NRW in aging networks that have gone over their life

7 ATN/OC-17100-GY, ATN/CN-16911-GY, and ATN/NG-19116-GY.
8 National Revenue Authority 2022.
9 Although 71% of the paved national road network can be classified as in good condition International Roughness Index (IRI<3), this only represents 15% of the total road network of the country.

cycle; (iii) limited institutional capacity to coordinate the growing project portfolio; and (iv) challenges intrinsic to comprehensive road safety and axle-load control[10].

2.12 **Proposed intervention.** The program will upgrade 23.5 km of the EBD road from Grove—on the outskirts of Georgetown—to Timehri by the Cheddi Jagan International Airport (CJIA) see Figure 2. The corridor supports key value-chains including fertilizers, manufacturing, food-processing, construction materials, mining, and forestry. The intervention is the first section of the integration corridor that connects to Brazil via Lethem. The project follows on from the recently completed four-lane widening project from Providence to Diamond (5 km) financed by the Bank. The Grove to Timehri section of the EBD road was last rehabilitated and widened in 1996 (loan 890/SF-GY[11]) and although there have been maintenance interventions the road has reached the end of its design life as evidenced by a progressively deteriorating pavement structure.

2.13 **Gender, inclusion, and employment.** Guyana has gender and diversity gaps, both in access to infrastructure services and in the labor participation of women with only 20% of transport employment and 5% in the construction sector. The project will contribute to increasing the social and labor impact of the infrastructure works on the local communities—with a particular focus on gender—through actions that promote female employment in construction and maintenance. The project will propose interventions aiming at improving the institutional capacity of the Ministry to measure/estimate the local social/labor impact generated by investments in road infrastructure and determine the skills training for women to develop successful career paths.

2.14 **Digital transformation.** As part of the Digital Transformation Strategy and in line with the IDB's Vision 2025: Reinvest in the Americas: a Decade of Opportunities, the programme will support initiatives to strengthen the development and application of digital technologies, including the application of Ground Penetrating Radar (GPR)[12] for the detection and mapping of underground utility networks. A Building Information Modelling (BIM) system will also be implemented to improve and modernize construction and management of road construction making it more efficient and transparent as several stakeholders will have access to information through a digital platform and to mitigate the risks of cost overruns on projects.

2.15 **Strategic alignment.** The project is consistent with the Bank's Vision 2025. Specifically, with the strategic goals: (i) Productivity and Innovation, by accelerating job creation; (ii) Economic Integration, by improving the quality of infrastructure; (iii) Social Inclusion and Equality, by promoting skill development; and (vi) Climate Change, by encouraging green and resilient infrastructure.

2.16 The program is consistent with the Update to the Institutional Strategy (UIS) 2020-2023 (AB-3190-2) as it aims to improve Guyana's ability to capitalize on a

---

[10] The axle-load limit of 10-ton is low and there is resultant damage to road pavements, shoulders, verges, and sidewalks.

[11] The total amount of this operation was US$35,360,000.

[12] The project will incorporate GPR technology to allow for georeferenced mapping of the underground networks traditionally for pipeline relocation, the utility relies on either using contractors or in-house resources for piloting via excavator equipment and this method is time-consuming and from time-to-time results in damages to the water infrastructure as the exact location and depth is unknown.

wider investment to close its sustainable infrastructure gap and improve efficiency, safety, and transparency of the transport sector infrastructure. It is consistent with the strategic goals of: (i) Productivity and Innovation, by promoting investment, to mobilize resources and build technical capacity within the country; (ii) Social Inclusion and Equality, by improving access to educational and employment opportunities for the low-income population, investments in transportation have important economic impacts, which improve social inclusion and equality; and (iii) Economic Integration, aims to increase economic integration through infrastructure networks. It is also consistent with the cross-cutting issues of: (i) Gender Equality and Diversity, by facilitating access of women to educational and employment opportunities in nontraditional jobs in the value chain of the transport sector; and (ii) Climate Change and Environmental Sustainability, by having a strong approach to climate resilience.

2.17 The program is consistent with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), since it supports the following strategic principles: (i) financing and technical assistance for infrastructure that supports economic growth, provides access, and fosters regional and global integration; and (ii) planning, building, and maintaining road infrastructure to support the delivery of quality services that promote the country's sustainable and inclusive growth. The project is also consistent with: (i) the IDBG Country Strategy with Guyana 2017-2021 (GN-2905) that is still in effect, with the project aligned specifically in the strategic area of delivering critical infrastructure through the strategic objective to support investment in infrastructure for private sector growth by strengthening resilient infrastructure and the facilitation of Public-Private partnership opportunities to develop investments in transport; and (ii) with the Transportation Sector Framework (document GN-2740-12) by contributing to the second dimension of success, focused on supporting the region toward the consolidation of transportation systems to provide roads improvements as it supports the key segment priorities of being bold in infrastructure, particularly through transport solutions. This operation is included in the 2022 Operational Program Report (GN-3087).

B. PROJECT OBJECTIVES AND COMPONENTS

2.18 **Project objective.** The general objective is to improve the quality, accessibility, resilience, and safety conditions in the intervention area through an increase in paved road coverage whilst promoting an efficient project implementation framework. The project-specific objectives are to reduce the Golden Grove-Timheri corridor: (i) transportation costs and travel time; and (ii) NRW losses from leaky underground networks. The program will also promote efficiency improvements in the sector by incorporating the works into road maintenance management systems, investing in technology for works construction and road safety management, and by building capacity at the MoPW.

2.19 **Component 1. Direct cost for road interventions.** Resources allocated to this Component will finance: (i) implementation of a two-lane road from Golden Grove to Timehri at 23.5 km of length, widening of shoulders, and where possible a bicycle lane following climate-resilient design and practices; (ii) reconstruction of the entire lateral drainage system along the road; (iii) works

including 6 bridges and 58 perpendicular culverts and an outfall; (iv) replacement of the water distribution network along the 23.5 km of the route as well as the relocation of electricity and telecom networks; (v) covering of parallel drains to form a pedestrian walkway in urbanized areas; (vi) other complementary works, including the interventions of the traffic management plan to provide safe and alternative routes to motorists during construction and the communication plan, and its interventions; (vii) construction of climate-resilient solutions and enhancements of the road; (viii) construction of parking and stopping lanes and sidewalks and other safety-related works; (ix) landscaping; and curb improvements, street lighting, and measures to ensure universal accessibility; and (x) technical and socio-environmental supervision.

2.20 **Component 2. Strengthening planning and investment.** Resources allocated to this Component will finance the development of a new Transport Infrastructure Master Plan and training for the country that will define, quantify, and structure climate-resilient investments in the sector over a 15-year horizon. This master plan will also define investments in infrastructure capacity and in traffic management and urban mobility systems. It also foresees the financing of two pre-investment studies of priority infrastructure projects for the country. This component will also coordinate institutional strengthening activities focused on gender mainstreaming to support female participation in the nontraditional jobs of the transport sector.

2.21 **Component 3. Promoting road safety management and efficiency.** Resources allocated to this Component will finance non-fixed equipment and fixed cameras for speed enforcement. In addition, it will finance the acquisition of equipment for breathalyzer control, incident management system, and awareness campaigns for behavioral change and road safety education. It will also finance the acquisition of a scale for axle weight in motion and dimension control.

2.22 **Project management, monitoring and evaluation, and audits (US$5 million).** It will finance: (i) the program's administration, including equipment, training, and the hiring of professionals required to strengthen the Executing Agency team in environmental and technical management; and (ii) monitoring and evaluation.

III. TECHNICAL ISSUES AND SECTOR KNOWLEDGE

3.1 **Financial instrument**. This Specific Investment Operation will be financed through an IDB loan of US$100,000,000 from the Bank's Ordinary Capital (OC), and the remaining US$15,000,000 from local counterpart. The proposed disbursement period for this program is five years.

3.2 The project will be executed by the MoPW through the Works Services Group (WSG) and Guyana Water Incorporated[13] (GWI). The WSG is a multidisciplinary Project Executing Unit (PEU) within the MPW, that has the mandate to execute GoG and donor-funded projects in the areas of transport and sea and river defenses. The unit is currently staffed with technical, socio-environmental, and

[13] GWI has been executing agencies for several IDB-funded projects (3242/OC-GY, 3243/BL-GY, 2535/BL-GY, and 2428/BL-GY), so there is knowledge of the internal procedures. They also did other multilateral projects like the World Bank in the past using internal PEU.

administrative personnel and has been involved in the execution of Bank financed Loan and Technical Cooperation (TC) operations since 2002.

3.3 **Climate resilience and adaptation.** The Bank will initiate a vulnerability assessment of the area of influence of the road. This analysis models rainfall under historical and climate change scenarios, determines the maximum runoff volumes and models the effects of flooding in the area. With this information, design capacity of the culvert sections, the drains and canals will be updated, and the inputs included in the Employer's Requirements of the tender documents of the road.

3.4 **Expected results.** The expected results are: (i) reduced vehicle operating costs; (ii) increased non-motorized passengers and pedestrians using footpaths; (iii) reduced average passenger travel time; and (iv) reduced NRW losses from the networks located along the roadway.

3.5 **Beneficiaries.** The direct beneficiaries of this operation are the users of Guyana's transportation network, including motorists and travelers to and from Guyana's international airport and the communities living in the Region 4 Demerara[14]. Additionally, commercial traders and other activities such as timber, oil and gas, and agricultural products utilize the road to access destinations and markets.

3.6 **Retroactive financing and expense recognition.** The Bank may finance retroactively under the loan up to US$20 million (20% of the proposed loan amount), eligible expenses incurred by the Borrower prior to the date of loan approval by the Bank's Board of Executive Directors to finance activities under Component 1 provided that all the requirements are substantially similar to those set out in the loan agreement requirements. These expenses must have been incurred on or after the Project Profile approval date, and under no circumstances shall expenditures incurred more than 18 months prior to the loan approval date be included.

3.7 The key lessons learned from the IDB's transport portfolio include the following: (i) the importance of having detailed designs prior to contracting the civil works to mitigate cost variations; (ii) a supervision consultant should be hired prior to the construction firm, with enough time for satisfactory review of engineering designs and bid proposals; (iii) the need to map and locate utility networks during the design stage and civil works; (iv) prioritize asset management techniques and investments; and (v) the relevance of defining tailored execution workflows based on proven integrated project management practices. These lessons have been fully integrated into the design of this operation.

[14] Villages in the area of influence of the project: Limbé, Golden Grove, Good Success, Craig, New Hope, Friendship, Garden of Eden, Brickery, Supply, Support, Relief, Land at Canaan, Sarah Johanna, Pearl, Caledonia, Te Huis te Coverden, Den Heuvel, Soesdyke - Linden Highway Junction, Soesdyke, Madewini River Bridge and Timehri. Within the project area, some 4,400 customers of GWI are located including residential and non-residential accounts.

IV. ENVIRONMENTAL SAFEGUARDS AND FIDUCIARY SCREENING

4.1 According to the Bank´s Environmental and Social Policy Framework (ESPF), the project is classified as category B, based on the potential negative environmental and social impacts associated with rehabilitation and upgrading of the roadway. These impacts are expected to be localized, temporary and moderate, as the works will be done within the existing Right of Way (RoW). During construction, the main expected impacts are related to dust, noise, traffic due to heavy machinery, nuisances to the community for temporary road closures, temporary and/or permanent impediments to access of residences and businesses and increase risk of occupational and traffic accidents. Works will be carried out in an urban developed location. There are no indigenous peoples nor critical/natural habitats or anticipated impacts to ecosystem services within the project area.

4.2 Physical displacement is not expected, however, economic displacement of businesses and informal vendors located within the existing RoW is anticipated. These impacts will be confirmed during due diligence and a Resettlement or Livelihood Restoration Plan will be prepared, as needed. An Environmental and Social Management System (ESMS) will be prepared along with the update of an existing Environmental and Social Assessment (ESA) and Environmental and Social Management Plans (ESMP), which will include all the works financed by the project. The Disaster and Climate Change Risk Classification is high as the area is prone to flooding and the criticality and vulnerability estimated for the infrastructure's interventions are high due to the potential negative impacts of service failure given the roadway's importance as a corridor to the main international airport. The Environmental and Social Risk Rating (ESRR) is substantial. Consultations will be carried out on the ESA/ESMP of the project, as well as the specific consultation with the potential affected by resettlement (if any).

V. OTHER ISSUES

5.1 One of the main issues is related to WSG's implementation capacity, and the volume of tasks and activities assigned to it. The substantial increase in the volume of investment in the MoPW, which will be executing ~US$86 million in 2022 alone (or ~US$8 million a month) has created the need to drastically address capacity issues.

5.2 **Risks.** The risks identified are: (i) ESMP could present execution challenges given the length of the road (25 km) of potential issues during construction; (ii) coordination among government bodies could prove challenging for utility replacement and relocation; (iii) slow decision-making may cause delays in project implementation; (iv) significant price escalation as a result of the current construction boom may affect the ability to conclude construction within the available budget; (v) underlying flood risk could materialize giving how prone the country is to riverine, coastal, and ponding floods; and (vi) implementation capacity shortcomings caused by the additional resources to the existing portfolio. Mitigation measures are the strengthening of the WSG team including a legal advisor, contract management specialist, utility coordinator, and social and gender specialist, and the improvement of procedures and information systems

associated with the management of works contracts. Additionally, to better manage the works contract and monitor price escalations and deviations of works schedule a BIM software platform (¶2.14) will be incorporated in the project.

5.3 The MoPW is piloting a management structure support team for WSG with the financing of the Caribbean Development Bank. It is expected that this execution support model will be extended to cover all donor-funded projects executed by WSG.

VI. RESOURCES AND TIMETABLE

6.1 Preparation costs are estimated at US$165,400. The POD distribution to QRR is planned for August 18, 2022, and the presentation to the IDB Board of Executive Directors for October 12, 2022. A TC “Support for Climate Resilient Road Infrastructure” (GY-T1184 / ATN/OC-19242-GY) for US$350,000 has been approved to support project design.

CONFIDENTIAL

[1] The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.

E&S Screening Filter

Operation Information

Operation Name	
Program to Support Climate Resilient Road Infrastructure Development	
Operation Number	GY-L1081

Operation Details

Organizational Unit	IDB Sector/Subsector
INE/TSP	MAJOR HIGHWAYS
Type of Operation & Modality	Original IDB Amount
LON / GOM	$100,000,000.00
Environmental and Social Impact Categorization (ESIC)	Disaster and Climate Change Risk Classification (DCCRC)
B	High
Environmental and Social Risk Rating (ESRR)	
Substantial	
Executing Agency	Borrower
GY-MPWT	MINISTRY OF FINANCE
ESG Primary Team Member	Team Leader
Patricia Henriquez Revoredo	Pablo Guerrero
Toolkit Completion Date	Author
12/05/2022	Escovar Bernal, Maria Alejandra
Applicable ESPSs with requirements	
ESPS 1; ESPS 2; ESPS 3; ESPS 4; ESPS 5; ESPS 9; ESPS 10	

Operation Classification Summary

Overriden ESIC	Overriden ESIC Justification
Comments	

Overriden DCCRC	Overriden DCCRC Justification

Comments

Summary of Impacts / Risks and Potential Solutions

There are no contextual risks associated with the project (e.g. political instability, oppresion of communities, armed forces in the project area).

The operation will not have direct impacts associated with child labor or forced labor in the workforce.

The operation will not have significant indirect and/or cumulative impacts associated with child labor or forced labor in the workforce.

The Executing Agency or other relevant entity (in relation to the operation) has a proven track record to respect and protect the fundamental principles and rights of workers (including fair treatment, commitment to non-discrimination, equal opportunity, protection of workers including workers in vulnerable situations, work accommodations, migrant workers' rights, collective bargaining and rights of association) and compliance with national employment and labor laws.

The operation will not result in the direct loss of employment (i.e. retrenchment).

The operation will not result in the indirect and/or cumulative loss of employment (i.e. retrenchment).

The Borrower will prepare and operate a Grievance Redress Mechanism for all workers (direct and contracted).

The operation will not promote a sustainable use of resources including energy, water and raw materials.

The operation will not have direct negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of pesticides.

The operation will not have indirect and/or cumulative negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of pesticides.

The operation is not expected to or currently produce indirectly-cumulatively GHG emissions.

The operation is not considering alternatives to implement technically and financially feasible and cost-effective options to avoid or minimize project-related GHG emissions during the design and operation of the project.

The operation has no exposure to climate transition risks related with a loss of value of a project driven by the transition to a lower-carbon economy, result from extensive policy, legal, technology, and/or market changes to address climate change.

The project will not directly affect the public (including workers and their families) by exposing them to hazardous materials released by the project, particularly those that may be life threatening.

The project will not indirectly-cumulatively affect the public (including workers and their families) by exposing them to hazardous materials released by the project, particularly those that may be life threatening.

The project's direct impacts on priority ecosystem services will not result in adverse health and safety risks and impacts to the project-affected people.

The project's indirect and/or cumulative impacts on priority ecosystem services will not result in adverse health and safety risks and impacts to the project-affected people.

There is no potential for an emergency or unanticipated event to occur in the project area of influence that demands immediate action to prevent or reduce harm to people, property, and/or the environment.

There is no potential direct impacts to workers and project-affected people related to the use or arrangement of security services to safeguard personnel and/or property.

There is no potential indirect and/or cumulative impacts to workers and project-affected people related to the use or arrangement of security services to safeguard personnel and/or property.

The operation doesn't have the potential to direclty impact modified habitat that include significant biodiversity value.

The operation doesn't have the potential to indirectly-cumulatively impact modified habitat that include significant biodiversity value.

The operation doesn't have the potential to directly convert or degrade natural habitat.

The operation doesn't have the potential to indirectly-cumulatively convert or degrade natural habitat.

The operation doesn't have the direct potential to implement project activities in critical natural habitat.

The operation doesn't have the indirect and/or cumulative potential to implement project activities in critical natural habitat.

The operation is not expected to directly impact a legally protected area or an internationally recognized area.

The operation is not expected to indirectly-cumulatively impact a legally protected area or an internationally recognized area.

The project will not directly introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna that have the potential for invasive behavior in areas where they are not normally found.

The project will not indirectly-cumulatively introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna that have the potential for invasive behavior in areas where they are not normally found.

The project is not likely to adversely directly impact ecosystem services.

The project is not likely to adversely indirectly-cumulatively impact ecosystem services.

The project is not expected to cause adverse direct impact on Indigenous Peoples. FPIC is required when there will be (i) impacts on lands and natural resources subject to traditional ownership or under customary use; (ii) Relocation of Indigenous Peoples from lands and natural resources subject to traditional ownership or under customary use; or (iii) significant impact on Cultural Heritage.

The project will not directly introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna that have the potential for invasive behavior in areas where they are not normally found.

The project will not indirectly-cumulatively introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna that have the potential for invasive behavior in areas where they are not normally found.

The project is not likely to adversely directly impact ecosystem services.

The project is not likely to adversely indirectly-cumulatively impact ecosystem services.

The project is not expected to cause adverse direct impact on Indigenous Peoples. Free, Prior and Informed Consent (FPIC) is required when there will be (i) impacts on lands and natural resources subject to traditional ownership or under customary use; (ii) Relocation of Indigenous Peoples from lands and natural resources subject to traditional ownership or under customary use; or (iii) significant impact on Cultural Heritage.

The project is not expected to cause adverse indirect/cumulative impact on Indigenous Peoples. FPIC is required when there will be (i) impacts on lands and natural resources subject to traditional ownership or under customary use; (ii) Relocation of Indigenous Peoples from lands and natural resources subject to traditional ownership or under customary use; or (iii) significant impact on Cultural Heritage.

Indigenous Peoples are not expected to be adversely impacted by direct project related land-acquisition or access restrcictions. Note that all impacts on lands and natural resources subject to traditional ownership or under customary law requires FPIC.

Indigenous Peoples are not expected to be adversely impacted by indirect/cumulative project related landacquisition or access restrcictions. Note that all impacts on lands and natural resources subject to traditional ownership or under customary law requires FPIC.

The project doesn't have the potential to cause adverse direct impacts on Indigenous Peoples who live in isolation and initial contact.

The project doesn’t have the potential to cause adverse indirect and/or cumulative impacts on Indigenous Peoples who live in isolation and initial contact.

The project is not expected to directly damage or negatively impact cultural heritage.

The project is not expected to indirectly-cumulatively damage or negatively impact cultural heritage.

The project is not expected to directly damage or negatively impact critical cultural heritage.

The project is not expected to indirectly-cumulatively damage or negatively impact critical cultural heritage.

The project will not negatively directly affect people due to their gender, sexual orientation or gender identity.

The operation has the potential to cause moderate direct impacts associated with accidents, injury, and attracttion disease arising from, associated with, or occurring in the course of work.

The operation has the potential to cause moderate indirect and/or cumulative impacts associated with accidents, injury, and attracttion disease arising from, associated with, or occurring in the course of work.

The Executing Agency will prepare and maintain an Environmental and Social Management System (ESMS) for the operation with specific elements related to Labor and Working Conditions under ESPS 2.

ESPS 3 - Resource Efficiency and Pollution Prevention

The operation will have moderate direct adverse impacts on human health and the environment due to pollution from project activities.

The operation will have moderate indirect and/or cumulative adverse impacts on human health and the environment due to pollution from project activities.

The operation will generate moderate direct impacts generated by solid waste (hazardous and/or non-hazardous).

The operation will generate moderate indirect and/or cumulative impacts generated by solid waste (hazardous and/or non-hazardous).

The operation will have moderate direct negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of hazardous materials such as PCBs, Radiological Waste, Mercury, CFCs, etc.

The operation will have moderate indirect and/or cumulative negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of hazardous materials such as PCBs, Radiological Waste, Mercury, CFCs, etc.

The operation is expected to or currently produce directly GHG emissions (less than 25,000 tons of CO2 equivalent per year).

ESPS 4 - Community Health, Safety, and Security

There are moderate direct health and safety risks associated with the design of structural elements or components of the operation (e.g. existing or new buildings, earthworks, bridges, drainage, roadways, power stations, transmission and distribution poles, underground utilities, and dams), and/or road transport activities (e.g. transport of heavy or over-sized equipment) which could result in health and safety impacts to third parties and project-affected people.

There are moderate indirect and/or cumulative health and safety risks associated with the design of structural elements or components of the operation (e.g. existing or new buildings, earthworks, bridges, drainage, roadways, power stations, transmission and distribution poles, underground utilities, and dams), and/or road transport activities (e.g. transport of heavy or over-sized equipment) which could result in health and safety impacts to third parties and project-affected people.

There is moderate potential for the project or project-related activities (e.g. the influx of temporary or permanent project labor, among others) to directly result in or exacerbate community exposure to water-related (i.e., waterborne, water-based, and vector-borne diseases) and/or communicable diseases (e.g. COVID).

There is moderate potential for the project or project-related activities (e.g. the influx of temporary or permanent project labor, among others) to indirectly-cumulatively result in or exacerbate community exposure to water-related (i.e., waterborne, water-based, and vector-borne diseases) and/or communicable diseases (e.g. COVID).

Natural hazards, such as earthquakes, droughts, landslides, floods, wildfires, or others, including those caused or exacerbated by climate change, are likely to occur in the project area, and these may significantly impact the project, and/or the project may significantly exacerbate the risk from natural hazards to human life, property, and/or the environment.

ESPS 5 - Land Acquisition and Involuntary Resettlement

The project will lead to moderate direct impacts related to land aqcuisition - Impacts include, and are not limited to, relocation; loss of shelter; loss of land; loss of assets; restrictions on land and natural resources; loss of income; loss of livlihoods; loss of social safety net.

The project will lead to moderate indirect and/or cumulative impacts related to land aqcuisition - Impacts include, and are not limited to, relocation; loss of shelter; loss of land; loss of assets; restrictions on land and natural resources; loss of income; loss of livlihoods; loss of social safety net.

Vulnerable people may be disproportionately affected by moderate direct impacts related to land aqcuisition - people may be considered vulnerable by virtue of disability, state of health, indigenous status, gender identity, sexual orientation, religion, race, color, ethnicity, age, language, political or other opinion, national or social origin, property, birth, economic disadvantage, or social condition. Other vulnerable poeple include the elderly, children, single-headed households, refugees, internally displaced persons, natural resource dependent communities.

Vulnerable people may be disproportionately affected by moderate indirect and/or cumulative impacts related to land aqcuisition - people may be considered vulnerable by virtue of disability, state of health, indigenous status, gender identity, sexual orientation, religion, race, color, ethnicity, age, language, political or other opinion, national or social origin, property, birth, economic disadvantage, or social condition. Other vulnerable poeple include the elderly, children, single-headed households, refugees, internally displaced persons, natural resource dependent communities.

ESPS 9 - Gender Equality

The project will potentially lead to minor direct risks and impacts associated with Sexual and Gender-based Violence.

The project will potentially lead to minor indirect and/or cumulative risks and impacts associated with Sexual and Gender-based Violence.

ESPS 10 - Stakeholder Engagement and Information Disclosure

The Borrower will prepare a stakeholder engagement framework/plan for the lifetime of the program (including the equal participation of women and men and also take into account Indigenous Peoples, vulnerable groups when relevant).

The Borrower will engage in meaningful consultations and engagement with stakeholders which is free of manipulation, interference, coercion, discrimination, and intimidation.

The project will deal with a subject matter and/or be implemented in an area where the manipulation, interference, coercion, discrimination, and intimidation of stakeholders has been documented.

The Borrower will operate a Grievance Redress Mechanism at the Project level (direct and contracted).

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

GUYANA

PROGRAM TO SUPPORT CLIMATE RESILIENT ROAD INFRASTRUCTURE DEVELOPMENT

GY-L1081

INITIAL ENVIRONMENTAL AND SOCIAL REVIEW SUMMARY

JUNE 27, 2022

This document was prepared by:
Patricia Henriquez Revoredo, Jodi Johnson (VPS/ESG) and Maria Alejandra Escovar (CSD/RND)

Initial Environmental and Social Review Summary	
Operation Data	
Operation Number	GY-L1081
IDB Sector/Subsector	Transport/Major Highways
Type of Operation & Modality	LON/ESP
Initial E&S Impact Classification (ESIC)	B
Initial E&S Risk Rating (ESRR)	Substantial
Initial Disaster and Climate Change Risk Classification (DCCRC)	High
Borrower	The Cooperative Republic of Guyana
Executing Agency	Ministry of Public Works
IDB Loan Amount (and total project cost)	$115,000,000.00 ($100,000,000.00)
Applicable ESPS's with requirements	ESPS 1; ESPS 2; ESPS 3; ESPS 4; ESPS 5; ESPS 9; ESPS 10
Executive Summary	
According to the Bank´s Environmental and Social Policy Framework (ESPF), the project is classified as category B, based on the potential negative environmental and social impacts associated with rehabilitation and upgrading of the roadway. These impacts are expected to be localized, temporary and moderate, as the works will be done within the existing right of way (RoW). During construction the main expected impacts are related to dust, noise, traffic due to heavy machinery, nuisances to the community for temporary road closures, temporary and/or permanent impediments to access of residences and businesses and increase risk of occupational and traffic accidents. Works will be carried out in an urban developed location. There are no Indigenous Peoples nor critical/natural habitats or anticipated impacts to ecosystem services within the project area. Physical displacement is not expected, however, economic displacement of businesses and informal vendors located within the existing RoW is anticipated. These impacts will be confirmed during due diligence and a Resettlement or Livelihood Restoration Plan will be prepared, as needed. An Environmental and Social Management System (ESMS) will be prepared along with the update of an existing Environmental and Social Assessment (ESA) and Environmental and Social Management Plans (ESMP), which will include all the works financed by the project. The Disaster and Climate Change Risk Classification is high as the area is prone to flooding and the criticality and vulnerability estimated for the infrastructure's interventions are high due to the potential negative impacts of service failure given the roadway's importance as a corridor to the main international airport. The environmental and social risk rating (ESRR) is substantial. Consultations will be carried out on the ESA/ESMP of the project, as well as the specific consultation with the potential affected by resettlement (if any).	
Operation Description	

The objective of the Program is to improve the quality, accessibility, resilience, and safety conditions of Guyana's infrastructure through an increase in paved road coverage, reduce of non-revenue water, climate resilient interventions and the rehabilitation and upgrading of a national road that connects the capital Georgetown to the international airport. The Program has 3 components, but this document focuses on Component 1 that finances the infrastructure works.

Component 1: Direct cost for road interventions. It will finance: (i) implementation of two-lane road infrastructure from Golden Grove to Timehri at 23.5 Km of length, widening of shoulders and where possible a bicycle lane (within the existing RoW); (ii) reconstruction of the entire lateral drainage system along the road; (iii) works including bridges and 58 perpendicular culverts and a sluice system; (iv) reconstruction of the water distribution network along the route as well as the relocation of utility networks ; (v) covering of about two-thirds of the parallel drains to form a pedestrian walkway; (vi) other complementary works, including the entire traffic plan and its interventions; (v) and technical and socio-environmental supervision.

The road will be improved with new geometry and dimensions where appropriate and with the replacement of the asphalt pavement, vertical and horizontal signage, in addition to the improvement of parallel streets to divert traffic during construction. The intervention will include landscaping, curb improvements, street lighting, and measures to ensure universal accessibility.

As part of Component 1 will be financed the update of the current preliminary design. The same firm responsible for this update will oversee the technical and socio-environmental supervision. The designs will be finalized after the estimated Board approval.

Component 2: Strengthening planning and investment. This component will finance the development of a new Transport Infrastructure Master Plan for the country that will define, quantify, and structure investments in the sector over a 15-year horizon. It also foresees the financing of two pre-investment studies of priority infrastructure projects for the country.

It must be considered that these pre-investments studies, if they include environmental and social studies, their terms of reference and outputs must be consistent with the applicable ESPF requirements.

Component 3: Promoting road safety management and efficiency.

Project Management, Monitoring and Evaluation, and Audits. It will finance: (i) program's administration, including the hiring of professionals required to strengthen the Executing Agency team in environmental and technical management matters; (ii) monitoring and evaluation; and (iii) external financial auditing.

Rationale for Classifications/Rating	
E&S Impact Classification	Category B The potential environmental and social impacts are expected to be localized, temporary and moderate, as the works will be done within the existing right of way (RoW). The ESA (part of the ESMS) will confirm classification during due diligence.
E&S Risk Rating	Substantial

	The overall risk is Substantial owing to factors associated with cause, contribution and performance. There is a Substantial risk of direct impacts from roadworks activities likely to generate economic displacement, traffic disruption and exacerbate drainage issues. There is a Substantial risk of cumulative impacts as a result of other road rehabilitation projects not financed by the Bank and occurring simultaneously, along with potential primary supply chain concerns linked to forced/child labor. There is a Substantial performance risk related to a need for enhanced capacity and training for the EA and potential contractors to meet the requirements of the new ESPF.
DCC Risk Classification	High The Disaster and Climate Change Risk Classification is high as the area is prone to flooding and the criticality and vulnerability estimated for the infrastructure's interventions are high due to the potential negative impacts of service failure given the roadway's importance as a corridor to the main international airport.

Is the use of Borrower E&S Framework being considered?	*No*

-

Environmental and Social Performance Standards (ESPSs) that apply to the proposed project	
ESPS-1. Assessment and Management of E&S Risks and Impacts	*Yes*

The Program will be executed by the Ministry of Public Works through the Works Services Group (WSG) and Guyana Water Incorporated (GWI), the latter specifically for the water distribution network works along the route. The WSG is a multidisciplinary Project Executing Unit (PEU) within the MPW, which has the mandate to execute the government and donor-funded projects in the areas of transport and sea and river defenses. The PEU is currently staffed with technical, socio-environmental, and administrative personnel and has been involved in the execution of Bank-financed loan and TC operations in the transport sector since 2002. However, one of the main concerns is related to WSG's implementation capacity, and the volume of tasks and activities assigned to it. The substantial increase in the volume of investment in the Ministry of Works has created the need to drastically address capacity issues. The WSG assessment together with the results of an institutional capacity analysis will inform the project implementation scheme. Mitigation measures are the strengthening of the WSG team, and the improvement of procedures and information systems associated with the management of works contracts. The MOW is piloting a management structure support team for WSG with the financing of the Caribbean Development Bank. It is expected that this execution support model will be extended to cover all donor-funded projects executed by WSG. The GWI has been executing agencies for several IDB-funded projects, so there is knowledge of the internal procedures. They also did other multilateral projects with the World Bank using internal PEU. All these inputs will be considered in the development of the ESMS, specifically, the organizational capacity guidelines and requirements. Additionally, the lessons learned from the other transport project currently being implemented by the executing agencies (WSG and GWI) will be included in the ESMS.

An Environmental and Social Assessment and Environmental and Social Management Plan (ESA/ESMP) was prepared between 2014 and 2015. This ESA/ESMP should be updated in accordance with the new

IDB Environmental and Social Policy Framework. It is worth noting that this ESA/ESMP did not include any baseline or assessment related to resettlement (physical and/or economic displacement).

An Environmental and Social Management System (ESMS) will be prepared, that will include the updated ESA/ESMP of all the works financed by the Program, according to the ESPF and national law. The ESMS will include all 7 elements: project specific framework; identification of risks and impacts; management plans; organizational capacity and competency; emergency preparedness and response; stakeholder engagement; and monitoring and review.

Component 1 will finance the update of the current preliminary design. The same firm responsible for this update will be responsible for the technical and socio-environmental supervision. The designs will be finalized after the estimated Board approval. A consulting firm was hired to support the executing agency in the drafting of the ESMS, the update of the ESA/ESMP and the consultation process. The same firm will be hired (within a month) to prepare the Resettlement or Livelihood Restoration Plan and support the executing agency carry out the specific consultation, once the scale of these impacts is clearer based on the preliminary results of the first contract.

The fit for disclosure version of the ESMS (that will include the ESA/ESMP and the Resettlement or Livelihood Restoration Plan) will be disclosed before the analysis mission. Consultations will be carried out on the ESA/ESMP of the project, as well as the specific consultation with the potential affected by resettlement (if any). The final versions of the documents that include the results of the consultations and their respective reports will be disclosed before OPC.

Based on an initial screening, there are no Indigenous territories nor communities within the area of influence. Nonetheless, following ESPS 1, potential impacts or risks will be assessed if as part of the social baseline Indigenous population is identified that requires specific measures in some of the management plan, including the Stakeholder Engagement Plan (SEP).

There is the potential for cumulative impacts if roadworks funded by this project overlap with those scheduled to take place as part of the road network expansion which will be funded by other donors. Those potential impacts, as well as indirect impacts, will be part of the ESA/ESMP.

A Stakeholder Engagement Plan (SEP) will be prepared and disclosed as part of the ESA/ESMP for all works disclosed prior to Analysis Mission, in accordance with ESPS 1 and 10. These will guide the consultation process before the Board approval, and the engagement with the communities during execution phase. The ESMS will include a grievance redress mechanism for the Program. Consultation reports will be prepared (for the ESA/ESMP and specific consultation report regarding the Resettlement Plan if needed) and their results included in the respective E&S documents and be disclosed on the IDB website before OPC. It should be considered that the context of the pandemic may affect the development of consultations. The virtual and face-to-face methodologies that are most suitable for the context of the project will be assessed, as well as following the national regulations for this type of meeting, and complying with the health protocols, if it is permitted and/or pertinent, to hold face-to-face meetings.

The Executing Agency must submit a report on the environmental and social performance of the Program's works every six months.

ESPS-2. Labor and Working Conditions	*Yes*

The upgrade of the roadway entails processes of construction and mobilization of personnel which presents risks and impacts associated with labor and working conditions, particularly the selection and prevalence of contractors with limited E&S capacity or poor labor practices. The primary risks related to occupational health and safety will be those associated with construction activities and operating heavy machinery.

As such the labor practices of the executing agency and supply chain factors will be assessed through the ESA to identify potential risks and impacts following the requirements of ESPS 2 and national law. This will include potential issues concerning forced/child labor within the primary supply chain for construction and infrastructural material (e.g., as associated with solar panels which may be considered for streetlights). The ESMP will include required measures to address any risks identified through a series of Labor Management Procedures (LMP). Requirements included in the LMP will be integrated in the operation's legal requirements, bidding documents and contractor and supplier contracts.

A grievance redress mechanism specific for workers will be developed, as well as a code of conduct. The operation will include in the ESMP of all works the guidelines for the contingency plan and biosafety protocols against COVID-19.

ESPS-3. Resource Efficiency and Pollution Prevention	*Yes*

Anticipated risks and negative environmental and social impacts are expected primarily during the construction phase and will be those typically associated with roadworks. These will include but not limited to impacts generated from noise and vibrations, air (e.g., dust, emissions, and fumes from heavy machinery/increased vehicular activity), waste generation (solid, liquid and hazardous via fuels, oils etc.), and drainage issues and potential contamination to soil or nearby waterbodies. There is the potential for cumulative impacts if roadworks funded by this project overlap with those scheduled to take place as part of the road network expansion which will be funded by other donors thereby increasing risk.

Notwithstanding, the identified impacts are moderate, localized, and short-term, and there are effective and available mitigation measures to address them during project execution.

Given that emissions are expected during construction and the likelihood of an increase once the roadway network is completed due to increased vehicular activity, the Bank will calculate expected gross GHG emissions to help determine the level of intervention particularly during the operation phase of the roadway.

The ESA will evaluate all direct, indirect, and cumulative environmental and social impacts and risks and identify appropriate mitigation measures which will be included in the ESMP using the mitigation hierarchy. In particular, measures will be identified to reduce GHG emissions and promote the efficient use of energy in both the construction and operation phases of the project (e.g., road design considerations with features such as bike paths, pavement/road surface materials which improve drainage and improve vehicle driving efficiency, mechanisms to traffic flow, solar streetlights etc.). The

ESMP will also outline explicit measures for the management of waste (solid, liquid and hazardous), noise and dust along with drainage.

ESPS-4. Community Health, Safety, and Security	*Yes*

The anticipated impacts and risks to the communities within the immediate area of influence are expected to be those typically associated with road construction among which include, nuisances due to noise, vibrations, dust, emissions, traffic, presence of heavy machinery, temporary blockage of access to residences, businesses and/or public infrastructure, and risk of pedestrian accidents, and possible conflicts between construction personnel and the communities. The health risk of the communities will be evaluated as part of the ESA, including that referred to COVID-19., related to the influx of workers.

The Disaster and Climate Change Risk Classification is High considering the hazards levels identified, and the criticality and vulnerability estimated for the infrastructure's interventions of the operation. The hazards present in the project area are floods, specifically riverine floods and sea level rise, and drought. Earthquakes, tsunami, and landslides are not considered in the influence area of the project because they reported a very low likelihood of occurring. For this operation, riverine flood, droughts, and sea level rise are hazards classified as High, as seen in the ESG Screening app (See Maps in the Annex A) and with the photographs included in *Captudata (*See photos in Annex A*)* where some flood events were recorded. The criticality and vulnerability of the infrastructure component of the project is classified as High, following the criteria shown in the criticality chart for roads (image included in Annex A): physical characteristics are Low – does not contain tunnels and contain few minor bridges; interaction with natural environment is Moderate – favorable topographic and soil type conditions but road has incidence on major population centers as it connect two international airports; and impacts of loss of essential services is High as the road connects the two major airports and the capital city to other important population centers, also expected traffic is expected to be high. A disaster risk assessment (DRA) will be performed, considering the riverine flood hazard from Demerara River incorporating climate change projections in the analysis, to estimate the possible impacts on the road and risk mitigation measures that must be implemented. The DRA will provide inputs for the detailed design of the road, including the design flow for its drainage system. This will mitigate the flood risk to the project and the potential exacerbation of risk that the road can cause to nearby communities. DRA under preparation will also include a Disaster Risk Management Plan (DRMP) as part of the ESMP, with structural and non-structural mitigation measures.

There are potential impacts from stagnant and pooling water which may occur during construction due to disruption of drainage within the project's area of influence. This may contribute to increased breeding sites for disease causing vectors (e.g., mosquitoes) and also create an inconvenience to the surrounding community alongside other nuisances such as traffic disruptions and restricted property access. Property damage from both drainage disruption resulting from increased likelihood of flooding, and general construction activities are also likely e.g., dust and emissions may affect not only workers and pedestrians traversing the site, but also the aesthetics of buildings, vehicles and other infrastructure. Given the urban commercialized landscape there are no anticipated impacts to ecosystem services.

Mitigation measures will therefore be proposed as part of the ESMP to address these risks/impacts and will include a Traffic Management Plan outlining requirements during roadwork activities to safeguard road users and pedestrians. This plan will include traffic and road safety measures, such as proper road

signaling and engagement with the community during construction works, in order to avoid or minimize accidents and disruptions to the community. Road design will also include the principles of Universal Design to allow access and use for people with disabilities. Measures for noise, dust and emissions will be managed in accordance with local regulations along with the SEP which will provide steps to guide community engagement and adequate notice during the construction phase. A Grievance Redress Mechanism will also be implemented as part of the ESMS for the project.	
ESPS-5. Land Acquisition and Involuntary Resettlement	*Yes*
The existing ESA/ESMP (2014-2015) did not include any baseline related to resettlement (physical and/or economic displacement). It indicates that as there will be no widening of the road no physical displacement will be required, but no assessment supported by field work is included. In addition, no assessment related to economic displacement is mentioned. The existing road will be widened by approximately 1m on both sides (within the existing right of way), widening of shoulders and, where possible, a bicycle lane. During construction are identified as potential impacts: livelihood impacts to businesses and informal vendors within the RoW; and difficulties and/or temporary blockage of access to housing, businesses, public facilities, and transportation. Therefore, the ESA/ESMP should be updated in accordance with the ESPF, particularly include an assessment of resettlement impacts (physical and economic displacement). If resettlement or livelihood impacts are identified will be developed a Resettlement or Livelihood Restoration Plan and will be carried out a specific consultation with people affected.	
ESPS-6. Biodiversity Conservation and Sustainable Management of Living Natural Resources	*No*
Given the location of the operation along an already established roadway in a disturbed urban setting, there are no anticipated negative risks and impacts to ecosystem services, protected areas, critical natural habitats, vulnerable/threatened species, or introduction of invasive species. Construction will take place along an existing RoW lacking mature forested vegetation and as such, deforestation and the need for a Revegetation Plan is not expected – however, this will be confirmed via the ESA. Should the ESA identify the need to clear vegetation, the assessment will include baseline data on the classification, type (species identification, etc.) and prevalence of this vegetation, and the ESMP will propose mitigation measures commensurate with the local regulations and the level of risk for the necessary clearance. During due diligence, the type/source of material and process to be utilized for the road surface upgrade will be identified, along with details and potential impacts pertaining to any associated facilities for which mitigation measures will be necessary – these will be outlined as applicable in the ESMP. Screening will be revised if needed to include this ESPS based on the findings of the ESA.	
ESPS-7. Indigenous Peoples	*No*
According to the initial screening, no Indigenous Peoples have been identified within the project's area of influence.	
ESPS-8. Cultural Heritage	*No*

It is not expected that there will be any archaeological and/or cultural sites in the project areas. However, it will be confirmed during due diligence. In any case, a chance finding procedure will be included in the ESMP.
ESPS-9. Gender Equality — *Yes*
The gender impacts and risks will be analyzed in the ESA, and if necessary, include, among other measures in management plans, specific measures as part of the SEP to promote equitable participation in the process. As part of the ESA, the risks, and impacts of the influx of workers will be analyzed and measures will be included so that the grievance mechanism is properly equipped to deal with these cases, if necessary. The ESMP will contain a code of conduct for workers. If a Resettlement or Livelihood Restoration Plan is required, it must contain measures to guarantee equitable access to compensation for women or any other vulnerable group.
ESPS-10. Stakeholder Engagement and Information Disclosure — *Yes*
A SEP will be prepared, in compliance with ESPS 1 and 10, which will, among other requirements, guide the consultations before approval by the IDB Board, as well as engagement with stakeholders (e.g., information disclosure, communication activities, consultations) during project execution. The ESMS will include an adequate grievance redress mechanism. Reports of the consultations carried out (of the project in general and with those affected by resettlement, if applicable) will be prepared, which must be integrated into the ESA/ESMP and published on the IDB website prior to OPC. It should be considered that the context of the pandemic may affect the development of consultations. The virtual and face-to-face methodologies that are most suitable for the context of the project must be evaluated, as well as following the national regulations for this type of meeting, and complying with the health protocols, if it is permitted and/or pertinent, to hold face-to-face meetings.
IDB Environmental and Social Due Diligence
For co-financed operations, is a common approach with other lenders being considered? — *No*
N/A
Strategy for Due Diligence

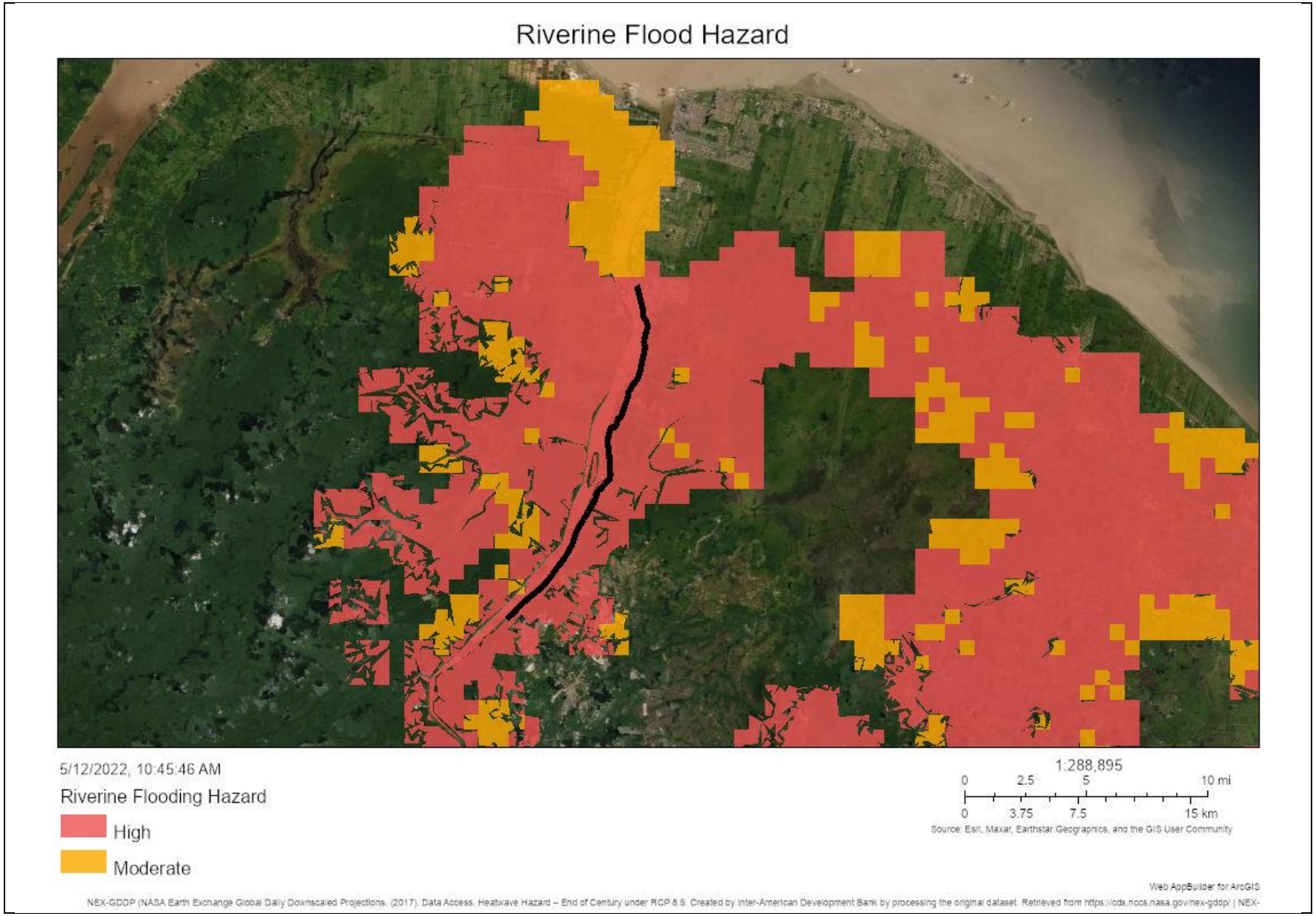
E&S Assessment requirement	*Status of development*	*Estimated resources to finalize (specify Bank or Borrower cost)*	*Estimated timeline to finalize (inc. consultation)*
Environmental and Social Management System (that includes ESA/ESMP and the SEP for all works)	Hiring process started There is an existing ESA/ESMP which needs to be updated to comply with ESPF	TSP budget: $50,000	Execution: 5 months Intended start and end date: Early May to early September 2022 Consultation: late August 2022

Resettlement or Livelihood Restoration Plan (that will be part of ESMS)	As needed; pending confirmation (within a month from start of ESMS consultancy). Will be same firm.	TSP budget: TBD	Execution: 3-4 months Intended start and end date: Early June to early September 2022 Consultation: late August 2022
Annexes			
Annex A	Maps		

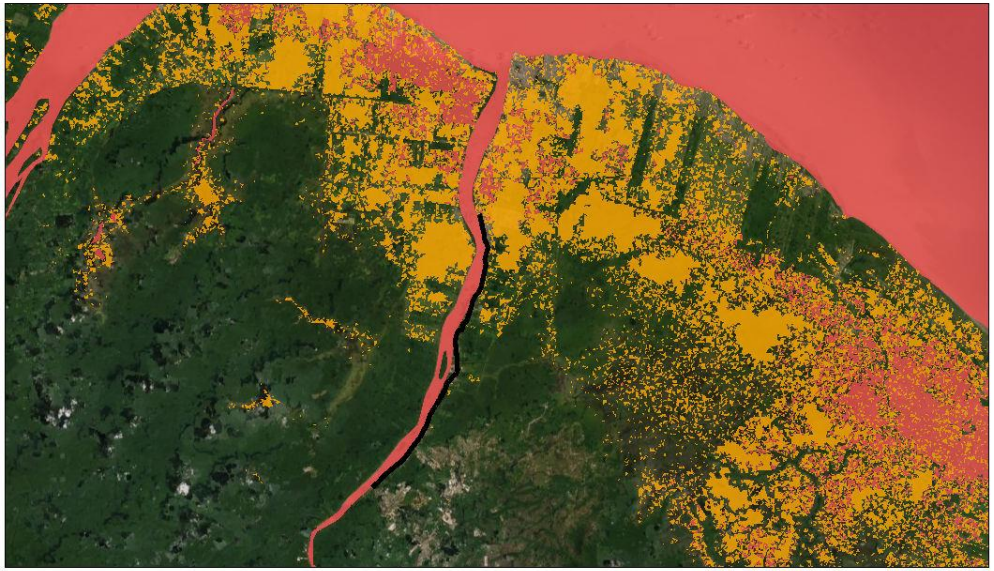
Annex A. Maps

- Project Location

- Disaster Risk


Riverine Flood Hazard
5/12/2022, 10:45:46 AM
Riverine Flooding Hazard
High
Moderate
1:288,895
0
2.5
5
10 mi
0
3.75
7.5
15 km
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
Web AppBuilder for ArcGIS
NEX-GDDP (NASA Earth Exchange Global Daily Downscaled Projections. (2017). Data Access. Heatwave Hazard – End of Century under RCP 8.5. Created by Inter-American Development Bank by processing the original dataset. Retrieved from https://cds.nccs.nasa.gov/nex-gddp/ | NEX-

Sea Level Rise Hazard



5/12/2022, 10:47:56 AM

SLR

Moderate

High

1:288,895

0 2.5 5 10 mi

0 3.75 7.5 15 km

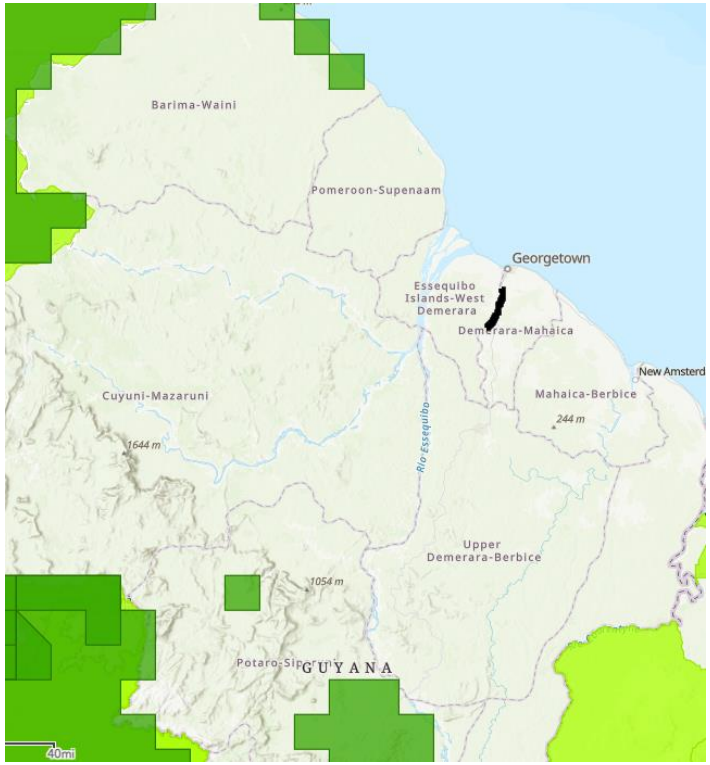
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

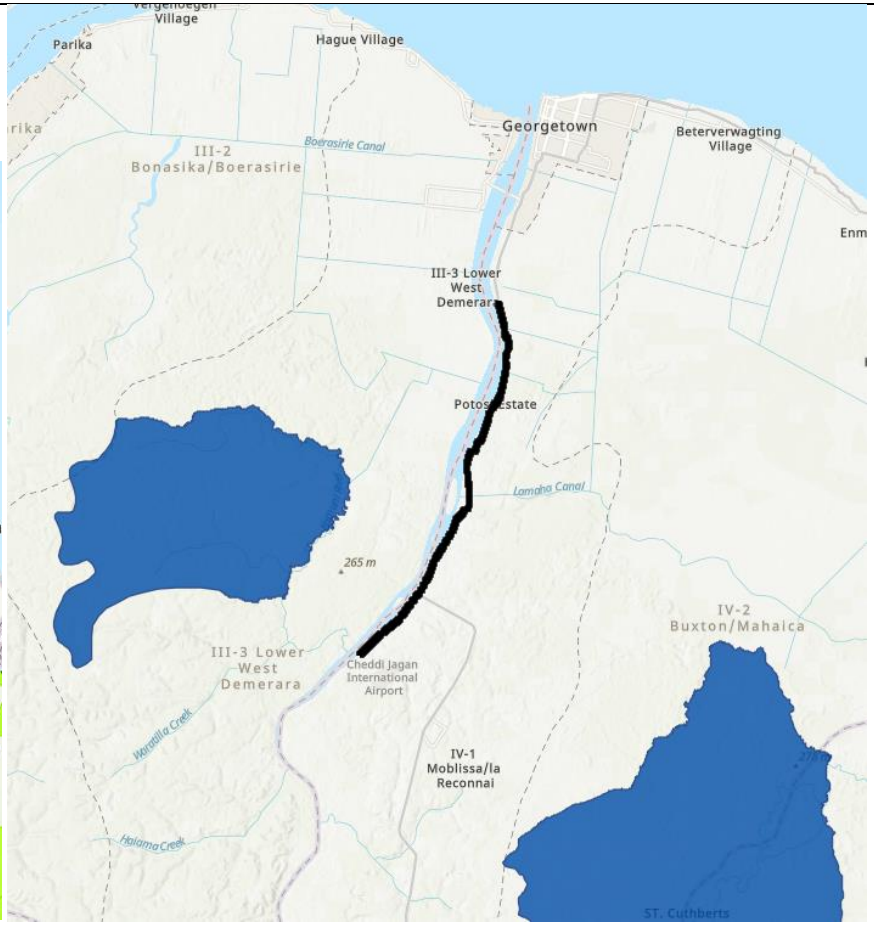
Web AppBuilder for ArcGIS

NEX-GDDP (NASA Earth Exchange Global Daily Downscaled Projections. (2017). Data Access. Heatwave Hazard – End of Century under RCP 8.5. Created by Inter-American Development Bank by processing the original dataset. Retrieved from https://cds.nccs.nasa.gov/nex-gddp/ | NEX-

Tsunami Hazard

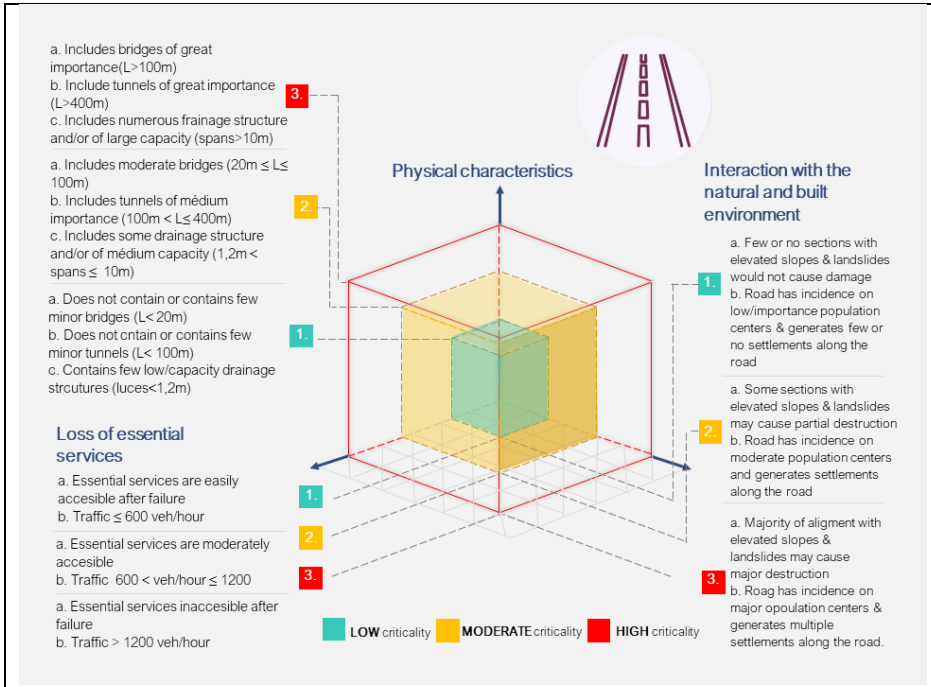
- Photographs from CAPTUDATA reflecting Disaster Risk – Taken 03-13-2022





- Protected and Key Biodiversity Areas

Indigenous Territories



- Criticality charts for roads

INDEX OF COMPLETED AND PROPOSED SECTOR WORK

GY-L1081

Issues	Description	Dates	Link to Document
Technical aspects	Strategies to reduce gender gaps in infrastructure	Ongoing / estimated finalization date: 2nd week of July	Link
	Engineering designs	Completed	Link
	Review for cost update of designs	Ongoing estimated finalization date: 3rd week of June	Link
	Traffic analysis and modeling of road influence area	Ongoing / estimated finalization date: 3rd week of July	Link
Analysis of cost and economic viability	Conduct required cost-benefit analysis of the project	July 2022	Link
Financial management/fiduciary issues and control environment	Assessment of Institutional Capacity (PACI)	Ongoing / estimated finalization date: 2nd week of July	Link
	Fiduciary management capacity of Ministry of Education (Annex III)	Ongoing / estimated finalization date: 2nd week of July	
Simplified Flood Risk Assessment	Procurement of Digital Elevation Model	Ongoing / estimated finalization date: 2nd week of July	Link
	Risk assessment and hydrometeorology and hydraulic analysis of project impact area	Ongoing / estimated finalization date: 2nd week of July	Link
Institutional analysis/personnel, procedures other aspects of implementation capacity	Institutional assessment to support project implementation unit, to increase the effectiveness of actions and the efficiency of public spending.	Ongoing / estimated finalization date: 2nd week of July	Link
Social and environmental safeguards	Social and Environmental Strategy developed by ESG as part of project preparation	Ongoing / estimated finalization date: 4rd week of July	Link
Other key issues, such as donors,	Assessment of the Legal Framework for Road Safety System in Guyana	Ongoing / estimated	Link

gender, sustainability, country/sector issues		finalization date: 3rd week of July	
	National Development Strategy	Ongoing / estimated finalization date: 3rd week of August	Link

CONFIDENTIAL

[1] The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.