



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 24-Jul-2019 | Report No: PIDC27255

**BASIC INFORMATION****A. Basic Project Data**

Country St Maarten	Project ID P171283	Parent Project ID (if any)	Project Name Sint Maarten Road Connectivity and Resilience Improvement Project (P171283)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Mar 31, 2020	Estimated Board Date May 15, 2020	Practice Area (Lead) Transport
Financing Instrument Investment Project Financing	Borrower(s) Sint Maarten Government	Implementing Agency National Recovery Program Bureau (NRPB)	

Proposed Development Objective(s)

The development objective is to improve connectivity in the project area between the western and eastern parts of the country and enhance resilience and safety in the road sector.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	20.00
Total Financing	20.00
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS**Non-World Bank Group Financing**

Trust Funds	20.00
Free-standing Single Purpose Trust Fund	20.00

Environmental and Social Risk Classification

Concept Review Decision



Substantial

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. Sint Maarten is a small island country in the Caribbean Sea, largely depending on tourism.** It is a constituent country of the Kingdom of the Netherlands,¹ with a total population of about 40,500 over 34 km² of land, which translates into one of the highest population densities in the region. The entire economy is highly dependent on international tourism, accommodating 1.6 million cruise arrivals and 520,000 tourists by air transport per year.² Annual international tourism receipts amounted to about US\$900 million or nearly 85 percent of GDP. Per capita Gross Domestic Product (GDP) was estimated at US\$27,200.³
- 2. Sint Maarten is vulnerable to extreme weather and climatic events, including high winds, storm surge and flooding.** The recent climate events, such as Hurricanes Irma (Category 5+) and Maria (Category 5), which devastated the economy in 2017, recast light on climatic and economic vulnerability of the country. Historically, the country has experienced a number of large storms and hurricanes (e.g., Danna in 1960 (Category 3), Luis in 1995 (Category 4), Lenny in 1999 (Category 3)), but such a risk seems to have been increasing in recent years, because of climate change.
- 3. The social and economic costs of these climate events are enormous for the Sint Maarten economy.** The National Recovery and Resilience Plan (NRRP), a post disaster needs assessment prepared in 2018, estimated total damages and losses from the recent two hurricanes, Irma and Maria, at US\$2.7 billion (US\$1.4 billion and US\$1.3 billion, respectively). About US\$2.3 billion would be required for recovery and resilience works over the next 7 years. Housing and tourism, including hotels and restaurants, were among the most seriously damaged sectors. The available capacity of hotels was estimated at about 65 percent in October 2018. While damages to the road sector were relatively modest, ports and airport were also affected substantially.
- 4. Evidence from around the world shows that disasters caused by natural hazards impact women and girls disproportionately.** Although there are few clear indications of critical gender issues in Sint Maarten, the burden of activities on women are normally increased by natural disasters, because of embedded social norms and women's sense of sole responsibility to look after the well-being of their families. Women may have relatively lower access to information and be affected by sexual violence as well as malnutrition caused by food shortage, which is particularly

¹ Sint Maarten is one of the four constituent countries of the Kingdom of the Netherlands, along with Netherlands, Aruba, and Curacao.

² As of 2016 (i.e., before the hurricanes hit) according to Sint Maarten, Department of Statistics. (2017). *Statistical Yearbook 2017*.

³ 2018 estimate by the Central Bank of Curaçao and Sint Maarten.



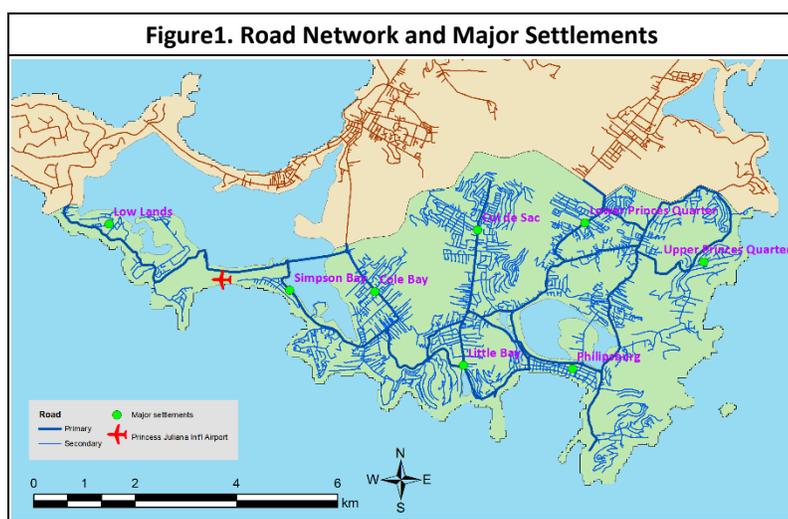
crucial during pregnancies. On the other hand, evidence also shows the positive results from bringing women to the core of disaster prevention and community resilience programs.

5. **Both short- and long-term measures are urgently called for to restore the economy and reinforce its resilience to future climate events.** While immediate and short-term interventions are important to meet critical humanitarian needs, medium- to long-term efforts are also necessary to strengthen the resilience and sustainability of the economy. The NRRP stipulates three priorities: (a) to assist vulnerable groups with the provision of food, shelter, education, livelihoods, enhanced health and psychosocial care and improved waste management, (b) to provide income support and expand job opportunities through the rapid restoration of business and economic activities, including critical infrastructure, and (c) to prepare public services to mitigate, respond and recover from the future impacts of natural disasters and climate change.

Sectoral and Institutional Context

6. **For small island states, such as Sint Maarten, global connectivity is critical to maintain, especially given the Sint Maarten’s high dependency on tourism.** This presents both opportunity and risk for the country. After the two hurricanes hit the country in 2017, tourist arrivals dropped sharply because many tourist facilities, including the Princess Juliana International Airport (PJIA), were damaged. The numbers of air passenger arrivals and landing slots are currently about 60 percent of the pre-hurricane levels, while the number of cruise arrivals recovered faster to the level before the crisis. The NRRP estimates the cost of repairing the damaged airport facilities at US\$173 million, calling for immediate repairing of the PJIA. With other donors, the Bank is currently supporting such efforts under the Airport Terminal Reconstruction Project (P167974).

7. **Sint Maarten lacks alternative routes and has long suffered from chronic traffic congestion.** The country has about 295 km of roads, of which 43 km are primary roads and the rest are secondary (**Figure 1**). Road coverage is sufficient enough with a road density of 870 km per 100 km² of land, among the highest by global and regional standards (c.f., 800 km in Singapore, 622 km in Netherlands, 418 km in Barbados, 165 km in Saint Kitts and Nevis, 133 km in Dominica). The road network is generally well maintained, with about 75 percent already paved by asphalt and concrete. Still, traffic congestion is persistent and apparently getting worse given the country’s high vehicle ownership and a large number of rent-a-cars used by tourists. In Sint Maarten, there are about 30,000 vehicles registered (including about 3,200 rental cars), which means a car ownership rate of 750 vehicles per 1,000 inhabitants. This is similar to or above other high-income countries experiencing heavy traffic congestion (c.f., 870 in the United States, 630 in Netherlands,

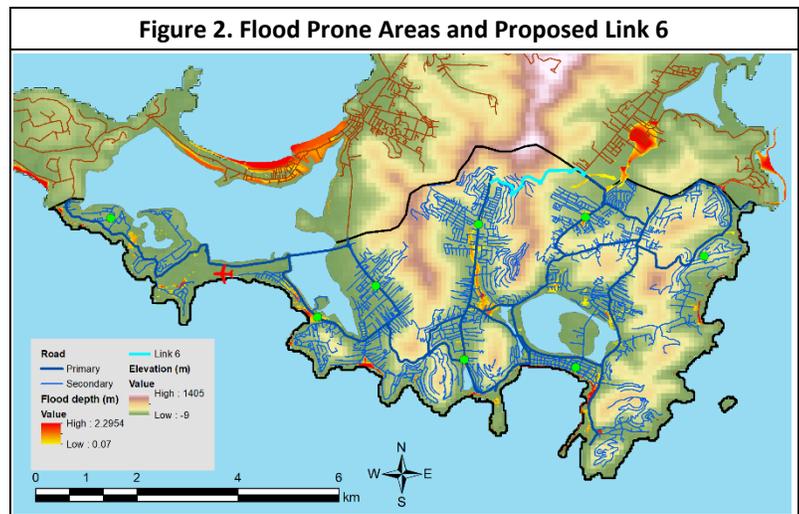




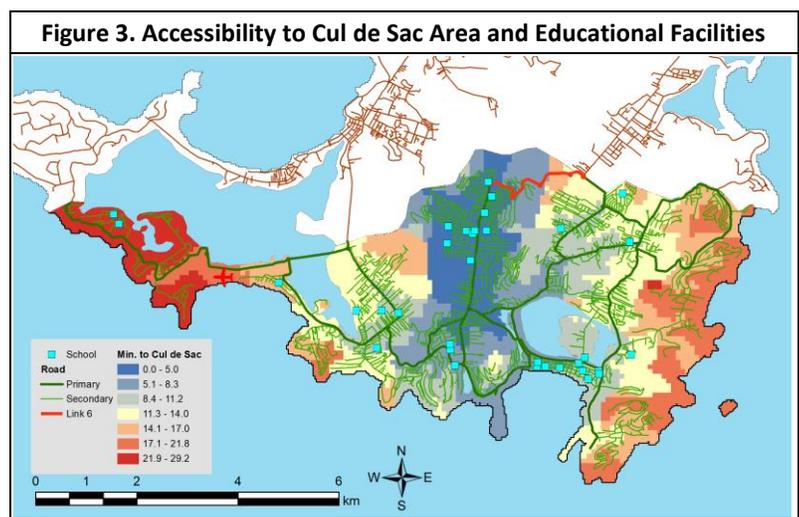
and 590 in the United Kingdom). Especially during the peak hours, traffic congestion has already been intolerable in some areas, such as Phillipsburg, Little Bay and Cul de Sac: The average driving speed in these areas is less than 10 km per hour. Significant costs are incurred to the economy every day.

8. **To improve transport mobility and reduce vulnerability to extreme climate events, the Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI) prepared a road development strategy, Main Road Network Investment Plan, in 2012, which articulates critical needs for road network expansion.** The plan identified 10 priority new roads as well as intersections, bridges and drainages to be improved, and recommended a multi-year maintenance program. However, the plan is rather conceptual and not based on a detailed transport-sector analysis using actual traffic data, economic costs or benefits. Four roads, i.e., Link 9 Simpson Bay Lagoon Causeway, Link 6 connecting Cul de Sac to Lower Prince’s Quarter, Link 3 Ring Road around Philipsburg, and Link 2 Mary’s Fancy Connection, are identified as high priority. Given limited financial resources, however, only one new road, Link 9, was actually constructed in the last 7 years.

9. **The recent consecutive hurricanes again focused attention on the country’s high vulnerability to extreme climate events.** Because of a lack of redundancy of the road network, some populated areas, such as Cul de Sac, have long been exposed to a significant risk of being isolated in the event of flooding or storm surge (**Figure 2**). Currently, the Cul de Sac Area is only connected by one access road, i.e., L.B. Scott Road. No evacuation route exists. In 2005, two people were killed in a flash flood in this area. The proposed Link 6 can provide an important alternative evacuation route connecting the western and eastern parts of the country.



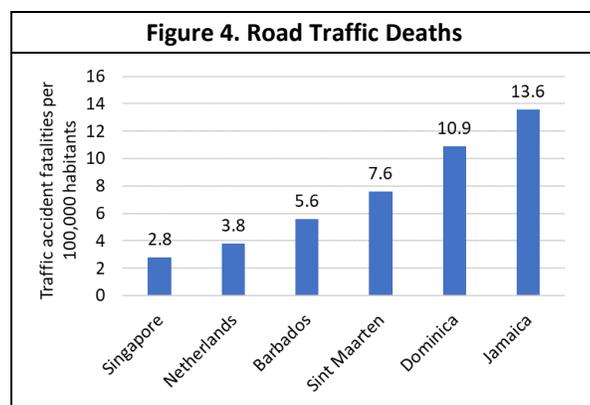
10. **The Cul de Sac Area is one of the most congested transport bottlenecks for many Sint Maarten residents.** In the country, there are 34 schools and other educational facilities, of which 10 are located in the Cul de Sac Area, including Sint Maarten Academy School, the largest school in the country with about 900 students (**Figure 3**). First, climate resilience cannot be compromised for these schools. Second, the concentration of schools is creating massive congestion in the area. All traffic





goes to and comes from L.B. Scott Road in the morning and afternoon. Without traffic congestion, it normally takes 10-15 minutes between Cul de Sac and Philipsburg. During the peak hours, it takes more than 1 hour. The proposed Link 6 could ease such a congestion, diverting some traffic from and to the eastern part of the country, such as Dutch Quarter Area.

11. **A comprehensive transport sector development strategy is due to prepare and implement, in order to ensure efficiency, resilience and safety of transport infrastructure and services.** Given the almost unregulated and lightly taxed vehicle imports,⁴ the number of private vehicles used by both residents and tourists continues growing, which, together with the limited space for the road network, makes it difficult for Sint Maarten to maintain efficient mobility of people and goods. In the medium to long term, there is a risk that the aggravating congestion would constrain not only people’s daily activities but also the tourism industry, therefore, undermining growth of the economy.
12. **A better regulatory and institutional framework could improve the whole country’s mobility, while alleviating traffic congestion and enhancing transport safety.** Currently, there is no effective regulation on public transport services, such as minibuses and taxis. Private operators manage their fleets and even develop infrastructure, e.g., bus stops, without any coordination among themselves. No consolidated information of bus routes or timetables is available for tourists or the private sector. While the Government embarked upon some data collection of existing and planned bus operations, its coordination role could have been strengthened further to optimize bus routes and bus infrastructure from the overall network point of view.
13. **Road safety is another matter of concern in Sint Maarten.** Despite the significant presence of walking tourists and other pedestrians, there is almost no sidewalk or pedestrian crossing in Sint Maarten. While the absolute number of traffic accidents is low because of the size of the country, the relative level of fatalities remains higher than other high-income countries. In 2016, 385 traffic accidents were reported, of which 92 involved injuries and deaths (**Figure 4**). Three people were killed by traffic accidents, which translate into a road traffic death rate of 7.6 fatalities per 100,000 habitants. This is twice as high as the Netherlands. Currently, there is no effective coordination mechanism among the relevant ministries, such as police, Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI), Ministry of Tourism, Economic Affairs, Transport and Telecommunications (TEATT), and Ministry of Public Health, Social Development and Labor.



⁴ In Sint Maarten, the annual license plate (i.e., motor vehicle tax) costs about US\$160 per passenger or light duty vehicle. In addition, technical inspection costs about US\$35 for every two years. In Saint Martin (French side), by contrast, the annual vehicle registration and inspection costs are higher at about US\$245 per year and US\$85 for every four years (Soualiga Post, 2017).



Relationship to CPF

14. The proposed project aims to support the implementation of the country's National Recovery and Resilience Plan (NRRP), which lays out the country's roadmap for recovery, reconstruction, and resilience from Hurricanes Irma and Maria, with priority projects identified. The NRRP aims at rebuilding a "better and stronger Sint Maarten" based on the Building Back Better approach which comprises (i) right-sizing, right-siting and structural improvement of assets and infrastructure, (ii) improved building and infrastructure standards, (iii) improved service delivery standards, and (iv) human resources and skills development. The Plan takes a phased approach to meet critical humanitarian needs in the short term and address resilience and sustainability issues in the medium to long term.
15. While damage to the roads and drainage sector was relatively minimal, urban storm water runoff and resulting flash flooding are a persistent problem in several communities. The NRRP estimates the total damages and needs at \$36.1 million in the road sector. The plan underlines the importance to strengthen resilience of the road as well as drainage systems, particularly Link 6 as an important evacuation route, looking ahead to the possibility of future disasters. The Project will also intend to improve drainage and other road structures in priority locations in the country. The proposed project is expected to largely contribute to improving resilience and connectivity of road infrastructure as a whole.
16. The project will also contribute to improving the quality of life of Sint Maarten people, addressing the World Bank's twin goals of ending extreme poverty and boosting shared prosperity. As discussed above, increasing traffic congestion is already a huge burden to people's lives in the country. Although few formal data exist, in general, poor and vulnerable people tend to live in poorly connected areas, suffering from long commuting distances and times. In addition, the risk of disasters, such as flash flooding, is also higher for poor and vulnerable populations because they tend to live in flood-prone areas. The NRRP stipulates such a risk, particularly highlighting the impact on housing and the sustainability of small businesses. The project is intended to address both climate resilience and growth aspects.
17. Taking this opportunity, the Project also intends to address road safety issues, as long as resources are available. Road safety is one of the priority areas of Transport Global Practice of the Bank. It is also included by the Sustainable Development Goals (SDG). While SDG Goal 3 aims to ensure healthy lives and promote well-being for all at all ages, SDG target 3.6 envisages to halve the number of global deaths and injuries from road traffic accidents by 2020. As discussed above, road safety remains a matter of concern in Sint Maarten. The Project will help to improve road safety, contributing to the SDGs.

C. Proposed Development Objective(s)

The project objective is to improve connectivity in the project area between the western and eastern parts of the country and enhance resilience and safety in the road sector.

Key Results (From PCN)



18. The PDO indicators for the Project include:

- Improved connectivity, particularly along Link 6, measured by reduced travel time between Cul de Sac and Dutch Quarter Areas during the peak and off-peak hours
- Enhanced localized resilience of the road network, measured by the total length of all-weather roads along spot improvements supported by the Project
- Improved road safety, measured by the number of fatalities and injuries around the areas improved by the Project

19. Potential intermediate indicators include:

- Development of emergency evacuation plans with gender perspectives
- Traffic volume on Link 6
- Accessibility to jobs
- Accessibility to social facilities, such as schools
- Updating a road master plan
- Adoption of a road asset management system with traffic counts updated
- Critical review of road standards from the resilience perspective
- Number of spot improvements for resilience
- Number of spot improvements for road safety

D. Concept Description

20. The proposed project aims at supporting priority road construction and improvement works for resilience, including Link 6, in the short term, as well as supporting the Government's efforts toward implementing strategic policies and building the capacity to enhance resilience, mobility and safety in the transport sector over the medium to long term. The total cost of the Project is preliminarily estimated at US\$20 million.

21. The following three components have been discussed with the Government of Sint Maarten (GoSM) during the pre-identification mission in June 2019.

22. Component 1: Construction of Link 6 (tentatively, US\$10 million). The component aims at improving connectivity of the country and reducing climate vulnerability as an evacuation road in the event of extreme weather. It will support new road construction of Link 6 (1.6 km) and upgrade an existing access road connected to Link 6 (Bethlehem Connection: 0.9 km) in the Cul de Sac Area. The road was one of the priority roads identified by the 2012 Main Road Network Investment Plan to address the risk of isolation of the Cul de Sac Area in the event of natural disasters, such as storm surge and flooding. Given the concentration of social facilities, such as schools, the road is also expected to contribute to reducing chronic congestion and improving accessibility from and to this area, especially during the peak hours.



23. For this road, the Ministry of VROMI has already commissioned some preparatory works, including preliminary design for the existing access road and informal consultation with landowners. While a design for the new construction part (Link 6) remains to be completed, the design for the existing alignment will also be reviewed to accommodate expected heavy traffic and enhance necessary safety measures. It is important to build Link 6 as a reliable and safe evacuation road connecting the western and eastern part of the country. The design review and design will take about 4 months and the actual construction work is expected to take 15 months.

24. **Component 2: Spot improvements of road resilience and safety (US\$8 million).** This component will finance priority spot improvements to strengthen (i) resilience of road infrastructure (such as surface, drainage and culverts) and (ii) road safety (including road signs, guardrails, sidewalks and other Non-Motorized Transport (NMT) infrastructure) at selected locations in the country. While spot improvement for resilience is of particular importance for reducing the network's vulnerability to climate change that the country is faced with, road safety is also imperative for communities as well as tourists. For both purposes, the component has two subcomponents: **(a) Support to strategic planning and policy development**, and **(b) Actual spot improvements in selected priority locations.**

25. Component 2(a) will first support the GoSM's capacity building to strengthen resilience, safety and mobility of the transport sector. This subcomponent (provisionally, US\$ 3 million) helps the Ministries of VROMI and TEATT to update and implement strategic transport sector policies and tools, with particular focus on resilience and road safety. The tentative list of potential activities is as follows, from which priority activities can be carried out:

- Preparation of emergency plans with gender perspective. The Project will support the development of emergency evacuation plans, to which women groups will be conformed and encouraged to contribute actively, given their differentiated needs and impacts during possible disasters. Women can also be at the core of the implementation of the plans, for instance, by leading prevention efforts, such as awareness raising in the communities, and post-disaster activities, such as first aid activities.
- Update of a road investment network development plan. The 2012 Main Road Network Investment Plan needs to be updated with a road inventory survey and traffic counts carried out. The VROMI has already developed geo-referenced road network data. However, the current road conditions and traffic remains crucially missing.
- Development of road asset management system, including financial sustainability analysis. The VROMI does not have any systematic road asset management tool, while depending on fragmented data and analysis at the individual project level. A more sustainable prioritization mechanism needs to be developed, given available resources in the road sector (i.e., about US\$1.1 million that the Government normally allocates from the general budget). Additional financing sources for road maintenance may need to be explored.
- Review of technical standards and costs of road works. Sint Maarten generally follows the Dutch road standards with some modifications based on local conditions. Given new climate conditions, including increases in extreme precipitation, the technical standards and associated costs will be reviewed. The results should be incorporated into the above road asset management strategy.
- Axle load management strategy. Related to the above, it is important to implement an enforceable policy for axle load management. The Government has a concern that overloading is excessively damaging the road network.



- Preparation of public transportation and mobility service development strategy. The strategy aims to promote public transportation and non-motorized transport. There is significant potential for Sint Maarten to become a greener and safer city state by promoting non-motorized accessibility and high quality public transport services, while curbing private vehicle use. The regulatory and institutional framework needs to be strengthened to work with the private sector, including bus operators and real estate developers. Gender-related differences in mobility, safety and usage of public transport will also be taken into account, to ensure that the strategy is gender responsive and promotes the usage of public transport services and non-motorized transport by women.
- Update and improvement of a road safety database, disaggregated by location and by gender. The Central Statistics Bureau already has a comprehensive road safety reporting system, which remains to be analyzed and linked to transport sector policies, especially related to development of road safety features and promotion of NMT. The improved database is expected to be used to identify blackspots and necessary measures, of which priority locations will be addressed under Component 2.

26. Following the above, Component 2(b) will support actual spot improvement works for both road resilience and safety in selected priority areas. Priority locations have not been identified yet. Through the above policy works during the project implementation, the current conditions of roads and road structures as well as the current traffic flows will be updated and used to identify particularly vulnerable and unsafe areas in terms of climate resilience and road safety. This subcomponent (US\$5 million) will finance spot improvements in such areas, for instance, by improving drainage and bridges and developing sidewalks and crosswalks.

27. **Component 3: Implementation support (US\$2 million).** This component will support preparatory works necessary for the Project, including a review of detailed design of the access road connected to Link 6, detailed design of the new construction part of Link 6, feasibility studies and environmental and social safeguards instruments, as well as operating costs required for meeting the Bank's requirements on environmental and social safeguards and fiduciary for all project components during project implementation. The design and safeguards instruments, such as ESIA and ARAP, are expected to be prepared in parallel.

28. Given the Government's tight fiscal situation, some of the preparatory works that need to be prepared in the short run, such as the design review and safeguard instruments, need to be financed by other resources that NRPB has. The technical assistance component of the Emergency Recovery Project (ERP) I was identified as a possible option.

29. Given the limited implementation capacity of NRPB, in addition, significant implementation support will need to be provided during project preparation. To this end, a short-term consultant may need to be hired to provide hands-on implementation support on technical aspects, safeguards and procurement, for which the existing window of TF can be used. These financing arrangements need to be discussed and agreed between the GoSM and the Bank.



Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The Environmental and Social Risk Category (ESRC) of the proposed project is considered Substantial. While it is expected that the project activities will have essentially positive social impacts by guaranteeing an expedited access of a large number of people to public services and increased community safety and disaster preparedness, the potential adverse risks and impacts on the environment and social are likely to be significant if not properly managed. Main environmental risks and impacts of the project are related to the Construction of Link 6 Road where land disturbance, erosion and sedimentation of watercourses from road works could occur; increased flow of water runoff from the new road section into existing culverts, channels and watercourses in the Cul de Sac and Belle areas; interference/loss of habitat and biodiversity along the new road construction of Link 6 (1.6 km-the east section); disposal of hazardous and non-hazardous, solid and liquid wastes; release of contaminants to the air, soil, and water due to routine or accidental circumstances; and inefficient use of resources including water, energy and raw materials. The main social risks and impacts are related to the land acquisition process, interacting with various stakeholders and conducting the consultation process, traffic management and road safety as well as managing construction labor. There are currently several landowners that have donated land for the road construction however one of those landowners has not yet agreed which represents a significant risk to the project. Several other smaller landowners along the road trajectory have also not yet been contacted therefore it is unknown the potential impacts this part of the land acquisition process will have on the project. Inputs from the design review will help identify if additional land will be needed should the horizontal and/or vertical alignment is adjusted to meet environmental and road safety guidelines. The NRPB and VROMI will need to prepare a comprehensive Environmental and Social Impact Assessment (ESIA) and associated Environmental and Social Management Plan (ESMP) as well as a Resettlement Action Plan (RAP) and Stakeholder Engagement Plan (SEP) prior to Project Appraisal, covering design, construction and operational phases of Link 6 Road. The ESIA will cover all relevant direct, indirect, and cumulative impacts of the proposed Activity. The ESIA and ESMP will need to be cleared and disclosed before project appraisal.

Regarding Component 2: Spot improvements of road resilience and safety, the proposed infrastructure works will have localized environmental risks and minor environmental impacts, however their locations will be known until data is collected and sector policies are drafted during project implementation. As such, NRPB, in coordination with VROMI, will prepare before project appraisal an Environmental and Social Management Framework (ESMF) that will provide guidance on how to assess the environmental risks and impacts of subprojects, the measures and plans to reduce, mitigate and/or offset potential adverse risks and impacts, provisions for estimative and budgeting the costs of proposed mitigation measures, and their implementation arrangements. The costs of the implementation of the environmental and social mitigation measures under Component 1 and Component 2 will be financed with resources from Component 3: Capacity Building and Implementation. Component 3 will also finance the inclusion of specific environmental and social criteria, including Road Safety features, to be applied in the revised Road Investment Network Development Plan.

Note To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.



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APPROVAL

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