

**CARIBBEAN DEVELOPMENT BANK**

**TWO HUNDRED AND EIGHTY-FIFTH MEETING OF THE BOARD OF DIRECTORS**

**TO BE HELD IN BARBADOS**

**MARCH 28, 2019**

**PAPER BD 122/18 Add.1**

**SANDY BAY SEA DEFENCES RESILIENCE PROJECT –**  
**ST. VINCENT AND THE GRENADINES**  
**NOTIFICATION OF APPROVAL BY THE BOARD OF DIRECTORS**

In accordance with Section 15A (which permits decisions by the Board of Directors (BOD) without a Meeting) of the By-Laws of the Caribbean Development Bank (CDB), BOD considered Paper BD 122/18, entitled “Sandy Bay Sea Defences Resilience Project – St. Vincent and the Grenadines” attached hereto and agreed to approve the loan described therein and referred to in Chapter 7 of the Report attached to the said Paper.

2. Under Section 15A of the By-Laws a decision shall not be regarded as having been taken by BOD pursuant to that Section unless:

- (a) the number of replies received within the period specified by the President in accordance with paragraph (b) of that Section represents a quorum of BOD pursuant to paragraph 2 of Article 31 of the Agreement Establishing the Bank (the Charter); and
- (b) members representing the majority of the voting power of the members replying, vote in favour of the proposal relating to the matter for consideration by BOD.

3. As at January 18, 2019, the date of expiry of the period specified by the President:

- (a) the number of replies received exceeded the quorum pursuant to paragraph 2 of Article 31 of the Charter; and
- (b) of those replies, members representing the majority of the voting power of the members replying had voted in favour of the proposal.

4. At its Two Hundred and Eighty-Third Meeting held on October 25, 2018, BOD considered Papers BD 19/99 Add.1 and BD 19/99 Add. 1 Corr. 1 and agreed, subject to the adoption by the Board of Governors (BOG) of certain amendments to CDB’s By-Laws, to the use of the procedures set out in the said Papers in connection with proposals regarding matters submitted to BOD for approval without a meeting. The amendments to the By-Laws were approved by BOG on December 10, 2018. In accordance with these procedures, decisions concerning proposals approved without a meeting are to be reported at the next conveniently scheduled meeting of BOD after the approval of such proposals.

5. BOD is therefore asked to note the approval by BOD without a formal meeting of the loan, described in the Report attached to said Paper BD 122/18, on the terms and conditions set out and referred to in Chapter 7 of the said Report.

**CARIBBEAN DEVELOPMENT BANK**

**TWO HUNDRED AND EIGHTY-FOURTH MEETING OF THE BOARD OF DIRECTORS**

**TO BE HELD IN BARBADOS**

**DECEMBER 13, 2018**

**PAPER BD 122/18**

**SANDY BAY SEA DEFENCES RESILIENCE PROJECT –**  
**ST. VINCENT AND THE GRENADINES**  
**(President’s Recommendation No. 972)**

The attached Staff Report appraises a proposal for a loan to the Government of St. Vincent and the Grenadines (GOSVG) to finance a project to reduce the vulnerability of the Sandy Bay community and other North Windward communities in St. Vincent and the Grenadines to aggressive coastal erosion caused by wave action and storm surges associated with the passing of tropical storms, hurricanes and winter swells. This is to be achieved through the construction of sea defences in sections along the Sandy Bay coastline.

2. On the basis of the Report, I recommend a loan to GOSVG of an amount not exceeding the equivalent of thirteen million four hundred and sixty-seven thousand United States dollars (USD13.467 mn) (the Loan) consisting of:

- (a) an amount not exceeding the equivalent of eight million three hundred and ninety-four thousand United States dollars (USD8.394 mn) from the Ordinary Capital Resources of the Caribbean Development Bank (CDB); and
- (b) an amount not exceeding the equivalent of five million and seventy three thousand United States dollars (USD5.073 mn) from CDB’s Special Funds Resources (SFR),

on CDB’s standard terms and conditions, and on the terms and conditions set out and referred to in Chapter 7 of the Report.

3. Funds are available within CDB’s existing resources and/or borrowing programme for the relevant disbursement.

**CARIBBEAN DEVELOPMENT BANK**



**SANDY BAY SEA DEFENCES RESILIENCE PROJECT –  
ST. VINCENT AND THE GRENADINES**

Considered by the Board of Directors via Round Robin Procedure

**(BD 122/18)**

This Document is being made publicly available in accordance with the Bank's Information Disclosure Policy. The Bank does not accept responsibility for the accuracy or completeness of the Document.

*Director, Projects Department*

*Mr. Daniel Best*

*Division Chief*

*Mr. L. O'Reilly Lewis*

**DECEMBER 2018**

This Report was prepared by an Appraisal Team comprising:

Albert Gillings (Project Coordinator), Alana Goodman Smith (Legal Counsel), Peter Manning (Financial Analyst), Elbert Ellis (Social Analyst), Paul Saunders (Environmental Specialist), Karene Daniel (Coordinating Secretary), Christine Dawson (Country Economist), Krishna Clarke (Risk Management Officer)

**Any designation or demarcation of, or reference to, a particular territory or geographic area in this Document is not intended to imply any opinion or judgment on the part of the Bank as to the legal or other status of any territory or area or as to the delimitation of frontiers or boundaries.**

## CURRENCY EQUIVALENT

[Dollar (\$) throughout refer to United States Dollars (USD) unless otherwise stated]

USD 1.00 = XCD2.70

XCD 1.00 = USD0.37

## ABBREVIATIONS

|        |   |  |
|--------|---|--|
| AO     | - | Accounting Officer   |
| BMCs   | - | Borrowing Member Countries   |
| BRAGSA | - | Buildings, Roads and General Services Authority                      |
| CCA    | - | Climate Change Adaptation  |
| CDB    | - | Caribbean Development Bank   |
| DA     | - | Designated Account   |
| DiMSOG | - | Disaster Management Strategy and Operational Guidelines              |
| DRM    | - | Disaster Risk Management   |
| EMP    | - | Environmental Management Plan  |
| ESMP   | - | Environmental and Social Monitoring Plan                             |
| ESRP   | - | Economic and Social Review Procedures                                |
| GDP    | - | Gross Domestic Product   |
| GOSVG  | - | Government of St. Vincent and the Grenadines                         |
| GRM    | - | Grievance Redress Mechanism  |
| IMF    | - | International Monetary Fund  |
| IPCC   | - | Intergovernmental Panel on Climate Change                            |
| ISP    | - | Implementation Support Plan  |
| M&E    | - | Monitoring and Evaluation  |
| MM     | - | Marginally Mainstreamed  |
| MTW    | - | Ministry of Transport, Works, Urban Development and Local Government |
| NEMO   | - | National Emergency Management Organisation                           |
| NESDP  | - | National Economic and Social Development Plan                        |
| OCR    | - | Ordinary Capital Resources   |
| OIE    | - | Office of Independent Evaluation                                     |
| PAS    | - | Performance Assessment System  |
| PC     | - | Project Coordinator  |
| PCR    | - | Project Completion Report  |
| PE     | - | Project Engineer   |
| PLW    | - | Project Launch Workshop  |
| PMDRM  | - | Project Manager, Disaster Risk Management                            |
| PT     | - | Project Team   |
| PWD    | - | Public Works Department  |
| SDF    | - | Special Development Fund   |
| SEP    | - | Stakeholder Engagement Plan  |
| SFR    | - | Special Funds Resources  |
| SIDs   | - | Small Island Developing States                                       |
| SVG    | - | St. Vincent and the Grenadines                                       |
| TOR    | - | Terms of Reference   |

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## COUNTRY DATA : ST. VINCENT AND THE GRENADINES

| Item   | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016     | 2017  |
|--|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| <b>POPULATION</b>  |       |       |       |       |       |       |       |          |       |
| Mid-Year Population ('000)   | 109.7 | 109.8 | 109.9 | 110.0 | 110.1 | 110.2 | 110.3 | 110.3    | 110.4 |
| Population Growth Rate (%)   | 0.9   | 0.9   | 0.9   | 0.9   | ...   | ...   | ...   | ...      | ...   |
| Crude Birth Rate   | 17.4  | 16.2  | 15.7  | 16.7  | 15.8  | 16.7  | 16.4  | 15.7     | 13.9  |
| Crude Death Rate   | 7.1   | 7.5   | 8.0   | 7.8   | 8.4   | 9.1   | 8.0   | 8.2      | ...   |
| Infant Mortality Rate  | 17.8  | 20.7  | 22.0  | 13.6  | 18.4  | 15.8  | 14.3  | 11.0 (p) | ...   |
| <b>EDUCATION</b>   |       |       |       |       |       |       |       |          |       |
| Net School Enrollment Rate (%)   |       |       |       |       |       |       |       |          |       |
| Primary  | 87.4  | 89.4  | ...   | ...   | 74.0  | 97.0  | 96.2  | 95.9     | 94.0  |
| Secondary  | 77.3  | 98.0  | ...   | ...   | 69.0  | 96.0  | 90.1  | 88.9     | 94.4  |
| Pupil-Teacher Ratio  |       |       |       |       |       |       |       |          |       |
| Primary  | 17.0  | 16.0  | 16.0  | 16.0  | 16.0  | 16.0  | 15.0  | 15.0     | 14.0  |
| Secondary  | 17.0  | 18.0  | 17.0  | 15.0  | 15.0  | 15.0  | 15.0  | 14.0     | 14.0  |
| <b>LABOUR FORCE</b>  |       |       |       |       |       |       |       |          |       |
| Unemployment Rate  |       |       |       |       |       |       | 24.9  |          |       |
| Male   |       |       |       |       |       |       | 20.7  |          |       |
| Female   |       |       |       |       |       |       | 30.1  |          |       |
| Participation Rate   |       |       |       |       |       |       | 67.9  |          |       |
| Male   |       |       |       |       |       |       | 73.7  |          |       |
| Female   |       |       |       |       |       |       | 61.8  |          |       |
| <b>INDICATORS OF HUMAN DEVELOPMENT</b>   |       |       |       |       |       |       |       |          |       |
| <b>HEALTH</b>  |       |       |       |       |       |       |       |          |       |
| Life Expectancy at Birth (years)   | 67.1  | 70.4  | 69.6  | 73.4  | 72.2  | 71.4  | 73.2  | 72.9     | ...   |
| Male   | 65.0  | 68.0  | ...   | 71.9  | 69.8  | 68.6  | 70.5  | 75.2     | ...   |
| Female   | 70.4  | 72.0  | ...   | 76.4  | 75.1  | 74.5  | 76.3  | 70.9     | ...   |
| Dependency Ratio   | 1.0   | 0.8   | ...   | 51.1  | ...   | ...   | ...   | ...      | ...   |
| Male   | 1.0   | 0.8   | ...   | 49.9  | ...   | ...   | ...   | ...      | ...   |
| Female   | 0.9   | 0.8   | ...   | 52.2  | ...   | ...   | ...   | ...      | ...   |
| Human Development Index  | ...   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | ...   | ...      | ...   |
| <b>HOUSING AND ENVIRONMENT</b>   |       |       |       |       |       |       |       |          |       |
| Households with piped water (%)  | 37.8  | 53.8  | ...   | 80.5  | ...   | ...   | ...   | ...      | ...   |
| Households with access to flush toilets (%)  | 24.0  | 33.2  | ...   | 68.4  | ...   | ...   | ...   | ...      | ...   |
| Households with electricity (%)  | 37.3  | 66.8  | ...   | 88.9  | ...   | ...   | ...   | ...      | ...   |
| Environmental strategy or action plan (year prepared): 2004  |       |       |       |       |       |       |       |          |       |
| Source(s): ECCB, GOSVG, CDB  |       |       |       |       |       |       |       |          |       |
| /1: As of 2014, public finance data classified according to the Government Finance Statistics Manual 2014. |       |       |       |       |       |       |       |          |       |
| ... not available  |       |       |       |       |       |       |       |          |       |
| Data as at November, 2018  |       |       |       |       |       |       |       |          |       |



## PROJECT SUMMARY

| <b>Financial Terms and Conditions</b>   |   |                           |  |                                 |                              |
|---|---|---------------------------|--|---------------------------------|------------------------------|
| <b>Borrower</b>   | Government of St. Vincent and the Grenadines (GOSVG)                      |                           |  |                                 |                              |
| <b>Implementing Agency</b>  | Ministry of Transport Works, Urban Development and Local Government (MTW) |                           |  |                                 |                              |
| <b>Disbursement Period</b>  | March 31, 2019 to October 31, 2022  |                           |  |                                 |                              |
| <b>Fund</b>   | <b>Fund Source</b>  | <b>Amount<br/>(000's)</b> | <b>Amortisation<br/>Period<br/>(years)</b> | <b>Grace Period<br/>(years)</b> | <b>Interest Rate<br/>(%)</b> |
| OCR-USD   | Equity and Market   | 8,394                     | 17   | 5                               | 4.80                         |
| SDF 9   | SDF Resources (Loans)   | 5,073                     | 20   | 5                               | 1.00                         |
| Loan Total:   |   | 13,467                    |  |                                 |                              |
| Counterpart Total:  |   | 2,913                     |  |                                 |                              |
| Total Project Cost  |   | 16,380                    |  |                                 |                              |
| <b>Fees</b>   |   |                           |  |                                 |                              |
| <b>Commitment Fee:</b> A commitment fee of one percent (1%) per annum on the undisbursed balance of the OCR portion of the Loan, commencing from the sixtieth (60th) day after the date of the Loan Agreement.                    |   |                           |  |                                 |                              |
| <b>Office of Risk Management (ORM)</b>  |   |                           |  |                                 |                              |
| <div style="border: 1px solid black; padding: 10px; background-color: #f0f0f0;">This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank's Information Disclosure Policy.</div> |   |                           |  |                                 |                              |

## Project Summary

### Project Outcome and Description:

The outcome of the Project is enhanced resilience of the Sandy Bay and other North Windward communities to coastal hazards and the potential impacts of climate change. This is to be achieved by adopting a proactive approach in reducing risk through the construction of climate change resilient sea defences. It is anticipated that this will lead to reduced loss of life, physical and economic damage and shorten the recovery period following a disaster. Project map is provided at Appendix 2.2.1.

The proposed project consists of the following components:

- (a) Project Preparation assistance
- (b) Infrastructure Works
- (c) Engineering and construction-related services
- (d) Project Management

Exceptions to CDB Policies: No exceptions to CDB policies are in place for this Project.

### **Gender Marker Summary**

| <b>Analysis</b> | <b>Design</b> | <b>Implementation</b> | <b>Monitoring &amp; Evaluation</b> | <b>Score</b> | <b>Code</b>                  |
|-----------------|---------------|-----------------------|------------------------------------|--------------|------------------------------|
| 1.0             | 0.0           | 0.0                   | 0.5                                | 1.5          | Marginally Mainstreamed (MM) |

Marginally Mainstreamed (MM): The Project has limited potential to contribute to gender equality.

## **1. STRATEGIC CONTEXT AND RATIONALE**

### **REQUEST**

1.1 By letter dated April 17, 2018, GOSVG requested assistance to finance the construction of sea defence infrastructure as a mitigation measure against aggressive coastal erosion that is impacting the Sandy Bay coastline, threatening critical coastal road and jeopardising the social and economic activities of the Sandy Bay community. This request follows a number of rapid and slow onset events, such as hurricanes and storm surges, which have caused significant economic, social and environmental damage in SVG. The construction of the sea defences will enhance the resilience of the Sandy Bay community through the reduction in vulnerability to coastal hazards.

1.2 This project is being appraised under CDB's Disaster Management Strategy and Operational Guidelines (DiMSOG). These guidelines provide direction for borrowing member countries (BMCs) and CDB staff on measures to reduce risk reduction related to natural hazards and climate change through assistance to BMCs to reduce their risk to natural disasters and climate change. This intervention constitutes pro-active assistance to GOSVG under DiMSOG.

### **MACROECONOMIC CONTEXT**

1.3 SVG is a small, middle-income country. Following decades of relying on banana production, the economy has re-oriented from largely agriculture to a more diversified economic base that includes tourism and light manufacturing. Given the economy's size, geographical location and dependence on external markets it remains vulnerable to natural disasters, environmental risks and economic shocks. Severe weather events exacerbated by the effects of climate change have battered the country's productive and physical infrastructure in recent years, negatively impacting economic activities and development. In the last 5 years, damage associated with weather-related disasters has been estimated at 3.9% of GDP. Coupled with the impact of economic shocks (Global Recession in 2008), GDP growth has slowed down (see Table below).

| <b>Items</b>                  | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|
| Real GDP Growth (%)           | 1.8         | 1           | 1.8         | 1.3         | 0.7         |
| Average Inflation (%)         | 0.8         | 0.2         | -1.7        | -0.1        | 2.2         |
| Primary Balance (% of GDP)    | -3.7        | 0.7         | 0.1         | 3.2         | 1.9         |
| Public Sector Debt (% of GDP) | 74.2        | 79.7        | 78          | 81.8        | 74.6        |
| Debt Service (% revenue)      | 19.9        | 17.3        | 17.2        | 16.6        | 19.3        |
| Source: GOSVG.                |             |             |             |             |             |

1.4 On the back of low growth and high public borrowing (to offset the impact of shocks, reconstruct damaged infrastructure, and develop a resilient and competitive infrastructure network in support of stronger, steady and sustainable growth), public debt grew from 52.9% of GDP (2008), and remains above the regional target of 60% GDP. The fiscal deficit has narrowed, reflecting a willingness

to pursue fiscal consolidation and lower the debt ratio. Since 2016, revenues have been boosted from strengthened tax compliance efforts and new revenue measures.

1.5 Growth should increase during the medium-term underpinned by improving performance in key sectors including tourism, following the opening of the international airport in 2017 and the completion of a state-of-the-art marina in Canouan. The economy is expected to benefit from tourism investment supported by initiatives to improve competitiveness in agriculture and tourism (attractions); the phased development of a geothermal energy plant located within the Sandy Bay census district, and the planned construction of a modern port in Kingstown. Given SVG's high vulnerability to climate change, its exposure to natural hazards is likely to increase the potential for considerable economic losses and negative impacts for development. To mitigate against this, Disaster Risk Management (DRM) and Climate Change Adaptation (CCA) have been accorded high national priority. As part of its DRM strategy, SVG is a member of the Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company, a regional parametric insurance fund. Further, GOSVG has set up a fiscal Contingency Fund in 2017 to help limit the fiscal shock of future natural disasters. GOSVG's proactive approach to reduce vulnerability through prevention and adaptation investments will contribute to lower the country's disaster risk profile and support more resilient economic development.

## **SOCIAL CONTEXT**

1.6 Sandy Bay is a rural coastal village on the North Windward Coast of SVG in the parish of Charlotte. It lies approximately four miles north of Georgetown (a main town in SVG) and south of the La Soufriere Volcano and can be identified in three sections – Trench Town (north), Pepperville (middle), and Phillips Level (south). The community, which comprises a significant indigenous Garifuna population, is also in close proximity to one of the island's most well-known rivers, the Rabacca Dry River. SVG's Population and Housing Census (2012) revealed that Sandy Bay had a population of 2,070 comprised of 509 households containing 52% males and 48% females. Generally, small-scale subsistence farming is the primary economic activity in Sandy Bay with the production of banana, cassava, pigeon peas, sweet potatoes, sorrel, yams and arrowroot. Many residents are engaged in craft activities and travel to Georgetown to sell their items.

1.7 Significant unemployment of approximately 30% closely correlates with the high level of deprivation in Sandy Bay. Unemployed women in the community are normally engaged in household activities, while the men seek work in construction and available opportunities in the informal sector. Waterfalls and beaches enhance the area, and recreational parks and nature trails contribute to the ambience and tourism potential for Sandy Bay and other communities along the North Windward Coast. These natural assets can potentially provide additional employment opportunities in fishing and community tourism for Sandy Bay communities with incomes contributing to poor and vulnerable households, which are consistently represented in the lowest poverty quintiles in SVG.

1.8 The family composition is predominantly single parent and extended families living in small to medium sized houses, typically of timber and masonry construction. The housing stock is of mixed quality, interspersed with abandoned and derelict houses, as a consequence of out-migration and disrepair. GOSVG contributed to the housing stock in the area and built 90 houses over the past decade, some of which were relief houses, constructed in the aftermath of hurricanes and extreme rainfall events. Sandy

Bay and neighbouring communities are extremely susceptible to these hazards and have suffered significantly over time. The Coastal Study Report for Sandy Bay and Dark View (2014) confirmed residents' anxiety about frequent natural hazard events and consequential debilitating impacts on road infrastructure, housing stock, quality of life and well-being.

1.9 Approximately 96% of households have electricity and domestic water supply and as an indicator of poverty, approximately 15% of the population use pit latrines. A number of institutions are present in this community including a health clinic, two pre-primary schools, one primary and one secondary school. There is a resource centre that serves the dual purpose of an office for teachers in the secondary school, as well as provides space to facilitate Continuing Education Programmes for residents of Sandy Bay and adjoining communities. In addition, the community has its own radio station (Garifuna Radio), a post office, police station, playing field and cemetery. A few small businesses are located in the community including hairdressing, bakery, and retail shops. There is a strong sense of self and community within Sandy Bay among residents and descendants of the Garifuna in particular, consequent upon the experiences, norms, values, religious beliefs and practices of the indigenous population.

## **SECTOR ISSUES**

1.10 **Hazard Vulnerability:** The Caribbean islands, due to their geology, location and relatively small size, are highly vulnerable to natural hazards including hurricanes, volcanic eruptions, floods, landslides, earthquakes and tsunamis. This vulnerability has been further exacerbated by the effects of climate change, evidence of which is already seen throughout the Region. The economies of small island states (SIDS) are particularly affected by natural disasters. For the period 1990-2008, the Caribbean experienced 165 natural disasters. The total impact for this period was estimated to be \$136 billion. The impact of natural disasters on populations has consistently been debilitating, often resulting in the retardation of economic and social development. Therefore, it is of utmost importance that governments seek ways to ensure sustainable economic and social development which is more resilient to hazard impacts and climate change.

1.11 **Climate Change Impacts:** Climate change is a serious threat to the economies of Caribbean nations, the livelihoods of communities and the environments; and infrastructure across the Region. The Intergovernmental Panel on Climate Change (IPCC) in its 2015 report indicated that the impact of climate change on SIDS will have serious negative effects, especially on socio-economic conditions. IPCC has also indicated that climate change is undermining the essential eco-system on which the islands are built. Economic investment and livelihoods, particularly those related to tourism, in the coastal zone of Caribbean countries are at risk from sea level rise and storm surge impacts.

1.12 Climate modelling projections for the Caribbean, including SVG, predict an increase in average atmospheric temperature of between 0.6°C and 2.3°C by the 2060s, and between 1.1°C and 3.9°C by the 2090s; and reduced average annual rainfall, a decrease of about 5- 6%. Average precipitation has declined by about 8.2 mm per month (-5.7%) per decade over the period 1960-2006. Increased sea surface temperatures and the potential for an increase in the intensity of tropical storms are also being predicted. According to predictions from the IPCC, the future hurricanes of the north tropical Atlantic will likely become more intense, with larger peak wind speeds and heavier near storm precipitation.

1.13 **Coastal Erosion:** Since 1980, 94% of the total population of SVG has been affected by a storm/hurricane impacting the island (World Bank 2010). The town of Sandy Bay, is exposed to the Atlantic Ocean and is vulnerable to the impact of daily wave action and storm surges associated with the passage of tropical storms and hurricanes. Over the past several decades, Sandy Bay's shoreline has been severely impacted by waves from these events, resulting in significant beach erosion. Hurricane Tomas in 2010, and heavy rains in 2011 resulted in considerable damage to the shoreline. Based on these impacts, GOSVG solicited funding from CDB and other multilateral development banks to undertake a coastal study of the windward coast to assess the level of exposure to storms and design sea defence options to mitigate further impacts. In response to the request, CDB financed a Rehabilitation and Recovery Loan, under which the Coastal Study of the Sandy Bay and Dark View was done. The study highlighted that there was continuous coastal erosion along the Sandy Bay coastline at a rate of 2.5 to 3m per year over the past 9 years. Additional assistance is being provided by the World Bank under the Regional Disaster Vulnerability Reduction Project which includes sea defence studies and designs carried out for three vulnerable sections along the main highways. MTW intends over the next 5 years to construct sea defences in (a) San Souci; and (b) Georgetown – Windward Highway, to strengthen their resilience to erosion.

1.14 **Vulnerability of Road Network:** The road network comprises 680 km of primary, secondary and minor/feeder roads. Three main highways, with a combined length of 100 km, comprise the primary road network and these are (a) the Vigie Highway (14 km); (b) the Leeward Highway (40.7 km); and (c) the Windward Highway (55 km). Key characteristics of the highways are drainage crossings ranging from box culverts to single span bridges; steep slopes and slope retaining structures; and coastal defences such as retaining walls and revetments. The road network is vulnerable to a variety of natural hazards including hurricanes, storms, as well as coastal and riverine flooding. Damage and loss to the road network after the 2013 Trough Event was estimated as 11% of GDP. Since 2010, GOSVG has received financing from CDB to carry out hydraulic, climate change, and slope stability studies along with road and bridges rehabilitation and upgrade works to improve resilience to the road network.

1.15 The Windward Highway has no redundancy in the North Western section of SVG. This highway provides the only access for Sandy Bay and other North Western communities to urban centers and key economic infrastructure located to the south, such as the planned geothermal energy plant and the Argyle International Airport.

1.16 **Public Works Department (PWD) of MTW:** Maintenance of the Government infrastructure is the responsibility of the Buildings, Roads and General Services Authority (BRAGSA), a statutory authority established and incorporated pursuant to the Roads Buildings and General Services Authority Act, 2008 of the laws of SVG. GOSVG has limited experience in the construction and maintenance of sea defences. CDB staff has observed that planning, execution, and timeliness of road maintenance are not in keeping with best practice. GOVSG has recently signed a grant agreement with the European Union to improve the institutional capacity of MTW and BRAGSA, including in respect of maintenance management systems.

## **COUNTRY SECTOR STRATEGY**

1.17 This project is of high priority to GOSVG as the National Economic and Social Development Plan (2013-2025) [NESDP] includes improving physical infrastructure, preserving the environment and

building resilience to climate change, as one of GOSVG's strategic goals (Goal 4) to facilitate and guide optimal improvement of the quality of life for its citizens. In its interventions, GOSVG's strategy will focus on 3 NESDP goals: (a) the re-engineering of growth; (b) enhanced human and social development; and (c) improving physical infrastructure, preserving the environment and building resilience to climate change.

### **LINKAGE OF PROJECT TO CDB'S COUNTRY AND SECTOR STRATEGY AND POVERTY GOALS**

1.18 The Project is consistent with the objectives of CDB's Country Strategy (2014 - 2018) for SVG of enhancing sustainable development through environmental protection and the support of disaster risk reduction and management policies. Also, the Project is consistent with CDB's strategic outcome of BMCs being less vulnerable to natural disasters and climate change impact with the following theme of Proactive Assistance to BMCs to reduce risk through: (a) institutional strengthening for DRM and CCA strengthening; (b) implementation of DRM and CCA risk reduction measures; and (c) community resilience enhancement.

1.19 This project is consistent with the following of CDB's strategic objectives:

- Supporting Inclusive and Sustainable Growth and Development

1.20 This project is consistent with the following of CDB's corporate priorities:

- Promote Environmental Sustainability (Climate Change Resilience, Environmental Management and DRM)
- Strengthen/Modernise Social and Economic Infrastructure

1.21 This project is expected to contribute to the following Sustainable Development Goals:

- SDG 11. Sustainable cities and communities
- SDG 13. Climate action

1.22 This project integrates the following of CDB's cross-cutting themes:

- Environmental Sustainability

1.23 This Project is consistent with the following of CDB's Sector and Thematic Policies:

- Disaster Management Strategy and Operational Guidelines
- Climate Resilience Strategy

### **RATIONALE**

1.24 The Coastal Study Report for Sandy Bay and Dark View (2014) documented a coastal erosion rate of 2.5 to 3m per year along the Sandy Bay coastline. The property and livelihoods of several vulnerable households in the poor, rural Sandy Bay community, as well as vital social and economic services upon which they depend, face an ongoing and increasingly severe threat due to their exposure to coastal hazards and the rapid rate of erosion. The Windward Highway is routed immediately adjacent to the coast at Sandy Bay and is also at risk of damage due to flooding and storm surge. There is no redundancy in the main road network at this location, and the Windward Highway provides the only access to popular attractions in the north-eastern section of the coast such as La Soufriere Volcano, the indigenous Garifuna population, recreational parks in Sandy Bay, Ouia and Fancy, and to key economic activities such as the geothermal site currently under development.



1.25 The Windward Highway provides the only road access for the National Emergency Management Organisation (NEMO) to service populations in this area upon the occurrence of natural hazard events. Failure to maintain access along the Windward Highway would have severe negative social and economic impacts on residents and road users. In October 2010, Hurricane Tomas inflicted substantial damage and losses on the Sandy Bay community, resulting in a declaration by GOSVG of the coastal section of Sandy Bay as a national disaster area. Detailed climate modelling projections (The CARIBSAVE Climate Change Risk Atlas - March 2012) for SVG predict increased intensity of tropical storms that would raise the storm surge elevation and increase wave energy and could cause severe damage to road and property.

1.26 The construction of engineered sea defences at Sandy Bay is urgent and will significantly reduce the vulnerability of the households resident in Sandy Bay and surrounding communities, who are dependent on access along the Windward Highway at Sandy Bay.

## 2. PROJECT DESCRIPTION

### PROJECT OUTCOME

2.1 The outcome of the Project is enhanced resilience of the Sandy Bay and other North Windward communities to coastal hazards and the potential impacts of climate change. This is to be achieved by adopting a proactive approach in reducing risk through the construction of climate change resilient sea defences. It is anticipated that this will lead to reduced loss of life, physical and economic damage and shorten the recovery period following a disaster. Project map is provided at Appendix 2.2.1.

### PROJECT COMPONENTS

2.2 The Project consists of the following components:

1. **Project Preparation:** A feasibility study which includes the preparation of environmental and social monitoring plan, detailed designs and bidding documents.
2. **Infrastructure Works:** Sea defences consisting of approximately 730m of shoreline protection works in 3 segments separated by dry rivers. The works include stone revetment, retaining walls and river training. The works also includes auxiliary works such as green space and pavement (walkway) construction.
3. **Engineering and Construction-related Services:** Consultancy services for the supervision of the Infrastructure Works. The Terms of Reference (TOR) for the consultancy services can be found in Appendix 2.2.2.
4. **Project Management:** Consulting Services for Project Management and Monitoring and Evaluation (M&E). The TOR are provided at Appendices 6.4.1 and 6.8.2, respectively.

### RESULTS FRAMEWORK

|   |
|---|
| <b>Project Impact</b>   |
| Contribute to increased resilience to natural hazards in the Sandy Bay census district. |

| <b>Outcome</b>  | <b>Indicator</b>   | <b>Baseline</b>    | <b>Target</b>     | <b>Data Sources, Reporting Mechanisms and Report Frequency</b> |
|---|--|--------------------|-------------------|--|
| 1 Enhanced resilience of the Sandy Bay community to coastal hazards and the potential | 1.1 1. 1. Reduced rate of coastal erosion along the constructed sea defence by December 2022, from 2.5 – 3.0m per year to 0.5. (1/150 return period) (#) | 3.0;<br>12/13/2018 | .5;<br>12/30/2022 | MTW  |

| <b>Outcome</b>             | <b>Indicator</b> | <b>Baseline</b> | <b>Target</b> | <b>Data Sources, Reporting Mechanisms and Report Frequency</b> |
|----------------------------|------------------|-----------------|---------------|--|
| impacts of climate change. |                  |                 |               |  |

**Assumptions for achieving outcomes**

Weather events do not exceed the design threshold for the sea defences.

| <b>Output</b>  | <b>Indicator</b>  | <b>Baseline</b>  | <b>Target</b>      | <b>Data Sources, Reporting Mechanisms and Report Frequency</b> |
|--|---|------------------|--------------------|--|
| 1 Sea defences completed   | 1.1 Sea Defences/ Landslip Protection/ Urban Drainage (Km)                            | 0;<br>12/13/2018 | .7;<br>12/31/2021  | PC Reports   |
| 2 Sensitisation meetings with contractors and community on employment opportunities completed and documented | 2.1 Number of contractors and community members sensitised (disaggregated by sex) (#) | 0;<br>12/13/2018 | 100;<br>12/10/2019 | PC's Reports   |

**Assumptions for achieving outputs**

No major adverse weather conditions.

Timely requests for disbursement of funds.

**LESSONS LEARNT**

| <b>Description</b>  | <b>Project Response</b>   |
|---|---|
| Inadequate maintenance leads to sub-optimal performance of the infrastructure and deterioration over time.  | It is important that the infrastructure asset is designed to be scalable or requires minimal maintenance. This will be incorporated into the design of the infrastructure asset.  |
| It is important that there are adequate channels of communication for residents and other stakeholders to advise the implementing agency of their concerns. | The Project incorporates a Stakeholder Engagement Plan (SEP) and grievance mechanism to allow communication between members of the affected community and the executing agency. This plan can be incorporated into the Environmental and Social Management Plan (ESMP) for construction activities. |

### **3. FINANCING PLAN**

#### **FINANCING STRUCTURE AND COSTS**

3.1 **Project Cost:** The Project is estimated to cost \$16.380 mn. The cost for project preparation is based on the contract value of these works. Estimates of the cost for shoreline protection works are based on estimates provided by an engineering services consultant engaged by GOSVG. These estimates were reviewed by CDB staff and found to be reasonable. Estimates of the cost for the Engineering Services Consultant, Project Engineer (PE), M&E Consultant, Accounting Officer (AO), Project Coordinator (PC) and Administrative Support are based on current rates for those types of professional services. A physical contingency of 20% was applied to the costs of the shoreline protection works, 15% for project preparation and 10% for the PC, PE, M&E Consultant and the AO. A price contingency of 2% was used, based on the International Monetary Fund forecast for SVG. A summary of the Project Costs and Financing Plan is shown below in Table 3.1, with details of the Project Costs, Phasing and Financing plan given in Appendix 3.1.

3.2 **Financing:** The Project will be financed by a loan from CDB to GOSVG of an amount not exceeding the equivalent of \$13,466,900 comprising;

- an amount not exceeding \$8,394,200 from CDB's Ordinary Capital Resources (OCR) to assist with the financing of the infrastructure works, engineering and construction-related services and to assist with the cost of project management; and
- an amount not exceeding \$5,072,700 from CDB's Special Funds Resources (SFR) to assist with the financing of the infrastructure works.

3.3 GOSVG counterpart contribution is the equivalent of XCD7,866,000 for project preparation and to assist with the cost of infrastructure works, engineering and construction-related services and project management. The OCR portion of the Loan will be repayable over 22 years, while the SFR portion of the loan will be repayable over 25 years, both of which are inclusive of a grace period of 5 years. The interest rate on the OCR portion of the Loan is variable and is currently 4.8%, while the interest rate on the SFR portion of the Loan is fixed at 1%. A commitment fee of 1% is payable on the undisbursed balance of the OCR resources commencing from the sixtieth day after the date of the Loan agreement.

**TABLE 3.1: SUMMARY OF PROJECT COSTS AND FINANCING**

| Components                                       | TOTALS                      |                       |                   |                  |                                       |                   |
|--|-----------------------------|-----------------------|-------------------|------------------|---------------------------------------|-------------------|
|  | OCR-USD                     | SDF 9                 |                   | COUNTERPART      |                                       |                   |
|  | Equity and Market Resources | SDF Resources (Loans) | Total             | GOSVG            | Executing Agency Counterpart Forecast | Total             |
| 1. Project Preparation                           |                             |                       | -                 | 700,000          | -                                     | 700,000           |
| 2. Infrastructure Works                          | 4,774,000                   | 3,931,000             | 8,705,000         | 590,000          | -                                     | 9,295,000         |
| 3. Engineering and Construction-related Services | 1,190,000                   |                       | 1,190,000         | 57,000           | -                                     | 1,247,000         |
| 4. Project Management                            | 319,800                     |                       | 319,800           | 1,183,000        | -                                     | 1,502,800         |
| <b>Base Cost</b>                                 | <b>6,283,800</b>            | <b>3,931,000</b>      | <b>10,214,800</b> | <b>2,530,000</b> | -                                     | <b>12,744,800</b> |
| 5. Physical Contingency                          | 1,093,300                   | 786,200               | 1,879,500         | 275,800          | -                                     | 2,155,300         |
| 6. Price Contingency                             | 425,900                     | 274,500               | 700,400           | 107,200          | -                                     | 807,600           |
| <b>Total Project Cost</b>                        | <b>7,803,000</b>            | <b>4,991,700</b>      | <b>12,794,700</b> | <b>2,913,000</b> | -                                     | <b>15,707,700</b> |
| 7. Interest During Implementation                | 463,200                     | 81,000                | 544,200           | -                | -                                     | 544,200           |
| 8. Commitment Fees                               | 128,000                     | -                     | 128,000           | -                | -                                     | 128,000           |
| <b>Total Financing</b>                           | <b>8,394,200</b>            | <b>5,072,700</b>      | <b>13,466,900</b> | <b>2,913,000</b> | -                                     | <b>16,379,900</b> |
| <b>Percentage Financing</b>                      | <b>51%</b>                  | <b>31%</b>            | <b>82%</b>        | <b>18%</b>       | <b>0%</b>                             | <b>100%</b>       |

## **4. PROJECT VIABILITY**

### **TECHNICAL ANALYSIS**

4.1 The proposed project site was prioritised from among four at-risk sites through an analysis, by consultants engaged by GOSVG, of the imminent risk to the coastal assets from wave actions.

4.2 Numerical models based on bathymetric and topographical surveys, along with wave climate and historical storm data from over 150 years of hurricane tracks and records, were used to estimate wave heights and inundation levels for a 1:150 year hurricane recurrence interval. This methodology captures the effects of extreme events, such as Category 4/Category 5 hurricanes, which, due to climate change, are expected to occur with a higher frequency. Two design options were developed, namely: (a) the construction of a combination of revetments, vertical seawalls and land reclamation; and (b) the construction of a series of 4 offshore breakwaters. The revetment solution was determined to be the most feasible due to considerations of constructability and least life-cycle cost.

4.3 The engineering design of the stone armour revetment was undertaken according to the Coastal Engineering Manual published by the United States Army Corps of Engineers and the Rock Manual - The Use of Rock in Hydraulic Engineering (2<sup>nd</sup> Edition), published by a United Kingdom/French/Dutch collaborative including the Construction Industry Research and Information Association. The stone armour design is flexible, reducing maintenance requirements; and scaleable, to accommodate climate variability considerations. The existing rocky geology along this section of coast was assessed by the consultant as unlikely to produce substantial settlement. The masonry seawall structures incorporate natural rock rather than concrete due to cost, availability and environmental impact considerations. The design life for the structures is 50 years.

4.4 The design features a buffer-zone that reduces wave run-up and provides space for amenities such as walkways, commercial stalls, and gazebos. All recreational features will be designed to be hurricane resilient.

### **ECONOMIC ANALYSIS**

4.5 For residents in the Sandy Bay census area including Owia and Fancy, the Windward Highway facilitates access to the southern region of St. Vincent for essential services such as healthcare, trade, education and employment. In addition, the ancestral burial grounds of the Garifuna people located north of Sandy Bay are of cultural significance and are also reached via this Highway. The Windward highway also provides access to tourism-related businesses (including ecotourism) and agricultural activities in the northern part of St. Vincent.

4.6 The Sandy Bay community is located in a high hazard zone due to its close proximity to the La Soufriere Volcano. This Volcano last erupted in 1979, and required the evacuation of approximately 20,000 people from the Northern communities. The shoreline adjacent to the section of the Highway passing through Sandy Bay has, in the past, been severely damaged by storm events. Hurricane Tomas (2010) caused extensive beach erosion along the Big Sand area, with at least 5m of horizontal retreat, increasing

the vulnerability of the Windward Highway to being undermined. Should a volcanic eruption or severe storm event become imminent or materialise, the Windward Highway is critical for facilitating an evacuation or providing access for emergency services to Sandy Bay and surrounding communities.

4.7 Completion of the proposed sea defences will reduce the vulnerability of the Windward Highway in the vicinity of Sandy Bay to the impact of storm surges as well as from ongoing erosion of the coastline. Coastal erosion is estimated at 2.5m per year and is caused by high intensity wave action. Due to the steep nature of the surrounding terrain, as well as the location of the volcanic hazard to the West of the existing Highway, there are no practical routes where an alternative road can be constructed. This Highway provides the only motorable access to this area and therefore its protection is vital to strengthening the resilience of the Sandy Bay community.

4.8 In addition, a number of structures in Sandy Bay are vulnerable to erosion caused by high-energy waves during storm events. The Coastal Study Report identified several homes and public facilities (e.g. clinic, post office) that have been impacted by, or are vulnerable to, wave effects. In some cases, residents have attempted to reinforce the base of their homes by packing stones. However, this would not provide sufficient protection during a storm or other natural hazard events. Due to significant social, cultural and economic ties, there is very little support for relocation of residents of this community. During past hazard events, such as Hurricanes Gilbert and Tomas, a number of houses and other important infrastructure on the seaward side of the road had to be abandoned. The Project will provide protection for these assets and support the building of a more resilient community.

### **MACROECONOMIC IMPACT**

4.9 The macroeconomic impact of the Project is expected to be positive. The Project will contribute to mitigating negative economic spillover and externality associated with disasters with a view to reducing economic losses and prolonged disruption to economic activity, volatility in output and income and, in turn, macroeconomic imbalance and instability that often prevails in the aftermath of climatic shocks. The Project is expected to have a positive impact on limiting post-disaster fiscal expenses on the one hand, and the loss of fiscal revenues due to production loss, on the other. In the face of limited savings, reliance for support from individuals and communities affected by natural hazards is largely on public agencies. GOSVG's coastal resilience management programme is also key to building resilience of the nearby fishing communities against the impacts of climate change, supporting food security and household sustainability. The Project, by reducing the severity of impacts from intense and more frequent extreme weather events in the future, improving recuperative capacity of the economy while moderating fiscal risks from disasters, has the potential to lower adverse impacts on the country's economic growth trajectory, that will help preserve fiscal and debt sustainability.

### **SOCIAL AND GENDER IMPACT ASSESSMENT**

4.10 The Project is classified as category "B" under CDB's Environmental and Social Review Procedures (ESRP) since the intervention has the potential for limited adverse social impacts which can be readily identified and mitigated. A Coastal Study Report (2014) inclusive of a socio-economic assessment



was undertaken to inform project design. The Project benefitted from stakeholder engagement during the assessment process.

4.11 Stakeholder consultations confirmed buy-in for the Project as a result of anticipated positive impacts. The coastal defense structures, including revetments and retaining walls are expected to reduce erosion from high wave energy and provide significant improvements for communities in the project area. Residential housing of communities located along the coastline would be protected with structures expected to withstand a 150-year event. The revetments in Sandy Bay will protect sections of the Windward Highway and prevent roadway loss. The Highway through Sandy Bay is an essential part of the road network and is critical for connectivity of communities located to the north as there is no network redundancy. Residents in neighbouring Owia and as far north as Fancy are at risk of being cut off from the rest of the country in the event the road through Sand Bay is impassable. Critically, this road provides the only evacuation route in cases of emergency such as the eruption of La Soufriere Volcano. The proposed works will reduce vulnerability and risks of interrupting economic and recreational activities and school access.

4.12 A number of impacts have been identified during the construction and operational phases of the Project. No relocation or involuntary resettlement has been identified. However, during construction, residents may experience discomfort from related construction activities. It is expected that men will outstrip women in accessing jobs during construction. The CDB-supported Country Gender Assessment (2016) for SVG indicated that a higher proportion of men are involved in the sector. Employment of women in the sector is constrained by a number of factors including lack of awareness and encouragement of women to apply. The Project, through the PC will close this information gap by sensitising both the contractor and communities, in particular women, to pursue employment opportunities. The PC will be supported by CDB staff during implementation to target three critical stakeholder levels - contractors, workers and community members in order to increase women's employment opportunities.

4.13 During the operational phase, the coastal works will protect the playing field in the north of Sandy Bay and enhance community activities in which men, women and youth participate. Given the importance of recreational and economic activities to the community, the buffer area is proposed to be used to provide additional space for these activities. In addition, the protection of the community's cemetery will be of critical importance to the religious celebrations and spiritual connection of the indigenous Garifuna population. These social impacts can be mitigated through adherence to existing national policies, and implementation of the Environmental and Social Management Plan (ESMP) to be developed by the consultants for implementation by the civil works contractor. An SEP, inclusive of a Grievance Redress Mechanism (GRM) will be developed to support participation and to keep all affected by the Project or with a stake/interest in the intervention informed during implementation. The GRM will strategically facilitate the resolution of any community and stakeholder concerns that may arise during this phase of the Project. The SEP will be supported by the PC and updated as necessary during implementation. Equal participation of all groups of men, women and youth will be facilitated.

4.14 According to CDB's Gender Marker Analysis (Appendix 4.2) the Project is marginally gender mainstreamed, with limited potential to contribute to gender equality.

### GENDER MARKER SCORE

| Analysis | Design | Implementation | Monitoring & Evaluation | Score | Code                         |
|----------|--------|----------------|-------------------------|-------|------------------------------|
| 1.0      | 0.0    | 0.0            | 0.5                     | 1.5   | Marginally Mainstreamed (MM) |

### ENVIRONMENTAL ASSESSMENT

4.15 The Project is classified as category “B” under the Bank’s ESRP as there is potential for limited adverse environmental impacts that are readily identified and mitigated. The project design includes a combination of activities for coastal protection bounded by Kayo Dry River in the north to Big Sands beach in the south and will include construction of a revetment, creation of a buffer zone between the revetment and roadway, masonry wall and reinforced concrete wall. The works will take place between the existing road alignment and the shoreline. There is no resettlement or land acquisition requirement.

4.16 SVG is experiencing the effects of climate change from intense hurricanes, severe weather systems, increased coastal erosion, subtle changes in temperature and rainfall patterns. The project area is exposed to natural hazards and climate risks including sea level rise, tropical storms and hurricanes, coastal flooding, storm surge and riverine floods. A site specific coastal wave environment study was carried out by independent coastal engineering consultants in 2013. The study recommended that, given the aggressive wave environment, a hard coastal protection and buffer between the coastal protection and the roadway is required. These recommendations informed the detailed engineering design for the Project. Construction of the buffer zone will reduce the wave run-up and serve as additional space for recreation and commercial use. The management of this area will be coordinated by the Social Development Unit of MTW.

4.17 **Construction Impacts:** Construction activities will likely cause a temporary disturbance of beach features but these will revert to normal on completion. The specific environmental aspects identified during the construction phase include: (a) Waste Management, ensuring that construction waste is properly handled; (b) Drainage and surface run-off, ensuring no blockages; (c) Traffic Disruption, caused by the movement of construction vehicles, resulting in traffic delays; (d) Occupational health and safety; and (e) Sourcing of revetment materials and haulage and permits: large boulders will be required for the revetment. The transportation of same will pose traffic challenges and road damage.

4.18 Construction-related environmental impacts which are likely to occur are expected to be short term and can be effectively managed with the adoption of mitigation measures, and effective monitoring and supervision.

4.19 **Positive Impacts:** The entire coastal area of Sandy Bay and segment of the Windward Highway will be protected by climate resilient revetment structures. This will decrease the coastal erosion and flooding risk. The increased resilience of the highway will ensure greater access to the north and a more reliable evacuation route.

4.20 **Environmental and Social Management Plan:** An Environmental Management Plan (EMP) was prepared as part of the Environmental Impact Assessment undertaken during the Coastal Study of Sandy Bay. Work will be undertaken to update the EMP to an ESMP to ensure that the social elements are elaborated. The ESMP will be included in the technical specifications of the bid documents and itemised for contractor pricing in the Bills of Quantities of the bidding documents for the various works contracts. Contractors will be required to identify and develop operational plans on how they propose to implement the works.

4.21 The technical specifications to be included in the bidding documents for the works will include requirements for: (a) management of waste, construction materials and silt, including transportation and disposal; (b) siltation control; (c) noise and dust abatement; (d) traffic management; (e) health and safety considerations; and (f) a disaster response plan.

4.22 **Environmental Monitoring:** During construction, the Engineering Services Consultants and the Ministry of Planning will be required to monitor and report on the contractors' operations for conformance with the mitigation measures stipulated. CDB staff will provide oversight of the environmental aspects during implementation.

**PAS GENERAL COMMENTARY**

4.23 In accordance with CDB's Performance Assessment System (PAS) the Project was accorded a composite score of 3.50. This indicates that the Project's performance is expected to be highly satisfactory.

**PAS TABLE**

| <b>Criteria</b> | <b>Score</b>        | <b>Justification</b>   |
|-----------------|---------------------|--|
| Relevance       | Highly Satisfactory | This is of high priority for GOSVG as its NESDP (2013-2025) includes improving physical infrastructure, preserving the environment and building resilience to climate change as one of its strategic goals (Goal 4) to facilitate and guide optimal improvement of the quality of life for its citizens. The Project is consistent with CDB's Strategic Objective of supporting inclusive growth and sustainable development in its BMCs. It is also consistent with the strategic theme of the 9 <sup>th</sup> cycle of the Special Development Fund (SDF) of promoting Environmental Sustainability and Climate Change. In addition, the Project is consistent with CDB's Strategic Outcome of BMCs being less vulnerable to natural disasters and climate change impact with the following theme of Proactive Assistance to BMCs to reduce risk through: (i) institutional strengthening for DRM and CCA strengthening; (ii) implementation of DRM and CCA risk reduction measures; and (iii) community resilience enhancement. |
| Effectiveness   | Highly Satisfactory | The Project is a proactive intervention in DRM and CCA which is highly likely to mitigate the negative fiscal impact (post disaster event) through increased resilience of vulnerable infrastructure. The designs for the roads, bridges and river defences, will take into account the need to upgrade infrastructure to be   |

|                      |                     |  |
|----------------------|---------------------|--|
|                      |                     | able to withstand a category 5 hurricane generated storm surge. The Project will contribute towards reducing the country's vulnerability to extreme meteorological events and other climate change impacts.  |
| Efficiency           | Satisfactory        | Under DiMSOG, a staff report omits the calculation of the Economic Rates of Return as applicable for normal lending. However, the engineering design process will facilitate the selection of least-cost, technically feasible options for achieving the Project's objectives. |
| Sustainability       | Satisfactory        | The Infrastructure Works will be designed with adequate protection measures to mitigate damage from future natural disasters and climate change variability.   |
| <b>Overall Score</b> | Highly Satisfactory |  |

**5. RISK ASSESSMENT AND MITIGATION**

**RISK JUSTIFICATION**

5.01 A summary of key risks impacting the Project is outlined in Table 5.1.

**TABLE 5.1: SUMMARY OF RISKS ASSESSMENT AND MITIGATION MEASURES**

| <b>Risk Category</b> | <b>Risk Type</b>             | <b>Description of Risk</b>  | <b>Mitigation Measures</b>  |
|----------------------|------------------------------|---|---|
| (Select)             |                              |   |   |
| Operational          | Project Design/Assumptions   | Actual design assumptions exceed the 1-in-150-year return period. | Infrastructure design allows for modification to enhance resiliency.  |
| Operational          | Disaster Risk/Adverse Events | Extreme weather event during construction implementation.         | The construction contract will require the Contractor to include mitigation measures against adverse weather events as part of the ESMP such as developing a disaster management plan and provision for stockpiling critical materials close to project site. In addition, the contractor has to provide sufficient insurance for adverse weather events. |
| (Select)             |                              |   |   |

## **6. IMPLEMENTATION AND PROJECT MANAGEMENT**

### **BORROWER**

6.1 GOSVG may, pursuant to Section 3(1) of the Loans (Caribbean Development Bank) Act 1973 of St. Vincent and the Grenadines (the Loans (CDB) Act), in such manner and on such terms and subject to such conditions as may be agreed between GOSVG and CDB, borrow from CDB from time to time such sums as may be required by GOSVG. Any agreement between GOSVG and CDB in respect of sums borrowed under this power must be made in the name of GOSVG and may be signed on behalf of GOSVG by the Minister responsible for Finance or by any person authorised thereto in writing by that Minister. A copy of such agreement must be laid before the House of Representatives as soon as possible after it is concluded.

6.2 The loans by CDB to statutory authorities have been made under guarantee of GOSVG under Section 7 of the Loans (CDB) Act.

6.3 Pursuant to Sections 3(6) and 10(4) of the Loans (CDB) Act, all amounts required for the repayment of any sums borrowed by GOSVG from CDB under Section 3(1) of the Loans (CDB) Act, or guaranteed under Section 7 of the Loans (CDB) Act, and all interest and other charges on such sums are charged upon, and payable out of, the Consolidated Fund of SVG.

6.4 Under Section 7(2) of the Government Guarantee of Loans Act where any sum becomes payable by GOSVG pursuant to a guarantee or undertaking given under Section 5, that sum shall be charged on the Consolidated Fund and the Minister shall direct payment to come out of that Fund accordingly.

### **IMPLEMENTING AGENCY ANALYSIS**

6.5 The Project will be implemented by MTW. Within MTW, externally-funded projects are managed within the Chief Engineer's Office, while locally funded projects are managed by the Project Management Department. Currently, CDB-funded Natural Disaster Management (NDM) projects are being managed by two PCs, two PEs and an AO under consulting services contracts being financed by CDB. The position of Chief Engineer is currently vacant and under the charge of the Deputy Chief Engineer. It is proposed that the Project will be integrated within the current project management arrangements for CDB-funded projects within MTW. CDB is satisfied that these project management staff have sufficient capacity to efficiently manage the addition of this project to their work programme.

### **PROJECT MANAGEMENT**

6.6 To take advantage of the experience of the existing project teams, it is planned that the existing consulting services contracts for the PC, PE and AO on the exiting CDB-funded NDM projects in the Project Country be extended to include the management of this project. GOSVG has commenced negotiations with these individuals in relation to the contract amendments.

6.7 It will be a condition precedent to first disbursement of the Loan that GOSVG will provide the Bank with evidence acceptable to the Bank, that the services of the existing PC for CDB-funded projects in the Project Country, or such other person as may be acceptable to the Bank, has been retained for the management of this Project.

6.8 In addition, it will be a condition of the Loan that, by September 30, 2019, or such later date as the Bank may agree, GOSVG has extended the service contracts of the PE and AO from the existing CDB-funded NDM projects in the Project Country, or such other persons as may be acceptable to the Bank, who shall be responsible for carrying out the duties of PE and AO respectively described in the TOR for the PE and AO at Appendix 6.4.1. The PE and AO shall report to the PC. The project organisation chart is set out at Appendix 6.5.1.

### **IMPLEMENTATION**

6.9 The Project will be implemented over a 31-month period commencing March 2019, and ending October 2022. It will be a condition precedent to disbursement with respect to the Infrastructure Works component that GOSVG engage an Engineering Services Consultant(s), whose qualifications and experience are acceptable to CDB, to provide engineering services for construction supervision of the Infrastructure Works. The proposed Project Implementation Schedule is presented in Appendix 6.6.1 and the Support Plan is attached at Appendix 6.6.2.

6.10 **Maintenance:** The Borrower shall keep the buildings, works and other infrastructure financed from the Loan, or cause the same to be kept, in good repair and condition and shall provide the financial and other resources required to adequately maintain the infrastructure financed from the Loan. As a further condition of the Loan, GOSVG, through MTW, will be required to undertake annual condition assessments of the project infrastructure, commencing no later than 12 months after the certificate of practical completion, or its equivalent, is issued by the engineering consultants. The assessments shall be conducted under the supervision of the Chief Engineer, MTW.

### **PARTICIPATION OF BENEFICIARIES AND STAKEHOLDERS**

6.11 The preparation and appraisal of this Project involved consultation with a range of stakeholders including representatives of various Government Ministries and Departments including inter alia, the Ministry of Finance, MTW; and community representatives in Project-affected areas. The discussions provided opportunities for feedback as stakeholders' opinions and concerns were expressed and, as necessary, are being incorporated into the project design. Project stakeholders will be invited to participate in the Project Launch Workshop (PLW), and stakeholders' meetings that will be convened during implementation. Multi-modal strategies, including community meetings, and messaging via various social media platforms, will be used to keep stakeholders abreast of implementation progress.

## **DISBURSEMENT**

6.12 It is expected that the first disbursement from the Loan will be made by March 31, 2019 in respect of Project Management. The Loan is expected to be fully disbursed by October 31, 2022. An Estimated Quarterly Loan Disbursement Schedule is presented at Appendix 6.2.

## **DESIGNATED ACCOUNT**

6.13 The Borrower may open and maintain a foreign currency Designated Account (DA) in a commercial bank or other financial institution acceptable to CDB, to be used exclusively for CDB's share of eligible expenses on terms and conditions acceptable to CDB and set out in Appendix 6.8.1 of this Paper. The DA, which will be subject to external audit, will be a revolving account funded with consecutive advances from CDB resources, which will be used exclusively to meet CDB's share of eligible expenses in foreign currencies as the expenditure is incurred.

6.14 The external audit of the DA will be undertaken by an independent audit firm acceptable to CDB.

## **PROCUREMENT**

6.15 Contracts for infrastructure works and goods to be financed by the CDB Loan, will be procured in accordance with CDB's Guidelines for Procurement (2006). Procurement of CDB-financed consultancy services shall be in accordance with CDB's Guidelines for the Selection and Engagement of Consultants by Recipients of CDB Financing (2011). The Procurement Plan is provided at Appendix 6.3. Any revisions to the Procurement Plan would require CDB's prior approval in writing.

## **MONITORING AND REPORTING**

6.16 The M&E strategy proposes retaining the services of the M&E Consultant currently engaged under the current CDB-funded NDM project. The consultant will be responsible for the collection of baseline information and for establishing arrangements for the operation of an M&E system. It will be a condition of the Loan that GOSVG will either, (a) extend the contract for the M&E services consultant from the existing CDB funded NDM project – Disaster Risk Reduction and Climate Adaptation Project, to include the duties described in the TOR for the M& E Consultancy; or (b) in accordance with the procurement procedures applicable to the Loan, select and engage an M&E consultant to carry out the duties as described in the TOR for the M& E Consultancy. The TOR for M& E Consultancy is set out in Appendix 6.8.2.

6.17 PC will be responsible for monitoring and reporting on the outputs of the Project, and for finalising the Results Framework set out in Chapter 2. It will be a condition of the Loan that GOSVG shall furnish, or cause to be furnished to CDB, the reports listed in Appendix 6.7.1 to this Report, in such form or forms as CDB may require.



## 7. TERMS AND CONDITIONS

### 7.1 Terms and Conditions of the Loan

| No | Subject               | Terms and Conditions of the Loan  |
|----|-----------------------|---|
| 1. | <b>Parties</b>        | <p><u>Bank</u>: Caribbean Development Bank (CDB)</p> <p><u>Borrower</u>: Government of St. Vincent and the Grenadines (GOSVG)</p> <p><u>Implementing Agency</u>: Ministry of Transport Works, Urban Development and Local Government (MTW)</p>  |
| 2. | <b>Amount of Loan</b> | <p>The Bank agrees to lend to the Borrower an amount not exceeding the equivalent of <i>thirteen million, four hundred and sixty-seven thousand United States dollars (USD13,467,000)</i> (the Loan) comprising:</p> <p><u>Ordinary Capital Resources (OCR)</u>:</p> <p><i>USD8,394,000 Equity and Market Resources</i></p> <p><u>Special Funds Resources (SFR)</u>:</p> <p><i>USD5,073,000 Special Funds Resources</i></p>   |
| 3. | <b>Purpose</b>        | <p>The purpose for which the Loan is being made is to assist the Borrower in financing a project to reduce the vulnerability of the Sandy Bay community and other north windward communities in St. Vincent and the Grenadines (the Project Country) to coastal erosion caused by wave action and storm surges associated with the passing of tropical storms, hurricanes and winter swells through the construction of a sea defence in sections along the Sandy Bay coastline in the Project Country (the Project).</p>   |
| 4. | <b>Repayment</b>      | <p>The Borrower shall repay the amount withdrawn from the <i>Equity and Market Resources</i> Loan Account in <i>sixty-eight (68)</i> equal or approximately equal and consecutive <i>quarterly</i> instalments on each Due Date, commencing on the first Due Date after the expiry of <i>five (5) years</i> following the date of this Loan Agreement or on such later Due Date as the Bank may specify in writing.</p> <p>The Borrower shall repay the amount withdrawn from the <i>Special Funds Resources</i> Loan Account in <i>eighty (80)</i> equal or approximately equal and consecutive <i>quarterly</i> instalments on each Due Date, commencing on the first Due Date after the expiry of <i>five (5) years</i> following the date of the Loan Agreement or on such later Due Date as the Bank may specify in writing.</p> |

| No. | Subject                                   | Terms and Conditions of the Loan   |
|-----|---|--|
| 5.  | <b>Interest</b>                           | <p>The Borrower shall pay to the Bank interest on the amount of the Loan withdrawn and outstanding from time to time as follows:</p> <p><i>Four decimal eight percent (4.8%) per annum (variable) on the amount of the Equity and Market Resources withdrawn and outstanding from time to time, payable quarterly.</i></p> <p><i>One percent (1%) per annum (fixed) on the amount of the Special Funds Resources withdrawn and outstanding from time to time, payable quarterly.</i></p>   |
| 6.  | <b>Commitment Charge</b>                  | <p>The Borrower shall pay to the Bank a commitment charge at the rate of one percent (1%) per annum on the amount of the OCR unwithdrawn from time to time. Such charge shall accrue from the sixtieth (60<sup>th</sup>) day after the date of the Loan Agreement and shall be payable quarterly.</p>  |
| 7.  | <b>Withdrawal and Application of Loan</b> | <p>Except as the Bank may otherwise agree, amounts withdrawn from the Loan Account(s) shall be used to finance the components of the Project allocated for financing by the Bank as shown in the <b>Financing Plan</b> up to the respective limits specified therein.</p> <p>Except as the Bank may otherwise agree, withdrawals from the Loan Account(s) shall not exceed in the aggregate <i>eighty-two percent (82%)</i> of the cost of the Project.</p> <p>The amounts withdrawn from the Loan Account(s) shall not be used to meet any part of the costs of the Project which consists of identifiable Taxes imposed under the laws of the Project Country.</p> |
| 8.  | <b>Period of Disbursement</b>             | <p>The Bank shall have received an application for first disbursement of the Loan by <i>March 31, 2019</i> or such later date as may be specified in writing by the Bank.</p> <p>The Loan shall be disbursed up to <i>October 31, 2022</i> or such later date as may be specified in writing by the Bank.</p>  |
| 9.  | <b>Procurement</b>                        | <p>Any <i>goods, works and services</i> to be financed from the amounts withdrawn from the Loan Account(s) shall be procured in accordance with the following procedures or such other procedures as the Bank may from time to time specify in writing:</p> <p><i>CDB's Guidelines for Procurement (January 2006)</i></p> <p><i>CDB's Guidelines for the Selection and Engagement of Consultants</i></p>   |

| No. | Subject  | Terms and Conditions of the Loan  |
|-----|--|---|
|     |  | <p><i>by Recipients of CDB Financing (October 2011)</i></p> <p>The Borrower shall comply with the procurement requirements set out in the <b>Procurement Plan</b>. Any revisions to the <b>Procurement Plan</b> shall require the Bank's prior approval in writing.</p>   |
| 10. | <b>Condition(s) Precedent to First Disbursement</b>                                  | <p>The Borrower shall, by the 60<sup>th</sup> day after the date of the Loan Agreement, or such later date as the Bank may agree, provide the Bank with evidence acceptable to the Bank, that the services of one of the existing PCs for CDB-funded projects in the Project Country has been retained for the management of this Project.</p>  |
| 11. | <b>Condition(s) Precedent to Disbursement in respect of the Infrastructure Works</b> | <p>The Borrower shall have:</p> <ul style="list-style-type: none"> <li>(a) received all requisite statutory, planning, building and environmental permits, licenses and/or other approvals in respect of each Infrastructure Works contract;</li> <li>(b) engaged the Engineering Services Consultants to provide the <b>Engineering Services Consultancy</b>; and</li> <li>(c) assigned the PE and AO.</li> </ul>  |
| 12. | <b>Project Implementation</b>  | <p>Except as the Bank may otherwise agree, the Borrower shall</p> <ul style="list-style-type: none"> <li>(a) implement the Project through the Implementing Agency;</li> <li>(b) carry out the Project at all times with due diligence and efficiency, with management personnel whose qualifications and experience are acceptable to the Bank and in accordance with sound technical, environmental, administrative, financial and managerial standards and practices; and</li> <li>(c) institute and maintain organisational, administrative, accounting and auditing arrangements for the Project, acceptable to the Bank.</li> </ul>   |
| 13. | <b>Project Management</b>  | <p>(a) The Borrower shall either:</p> <ul style="list-style-type: none"> <li>(i) extend the contract of the PC from the existing CDB funded NDM project – Disaster Risk Reduction and Climate Adaptation Project, for the duration of the Project, to include the duties and responsibilities of the PC described in the <b>Project Management Duties and Responsibilities</b>; or</li> <li>(ii) in accordance with the procurement procedures applicable to the Loan, select and engage a PC to carry out the duties and responsibilities of the PC described in the <b>Project Management Duties and Responsibilities</b>;</li> </ul> <p>The PC shall be responsible for the overall management of the Project and shall report to the Chief Engineer, MTW.</p> |

| No. | Subject                          | Terms and Conditions of the Loan   |
|-----|----------------------------------|--|
|     |                                  | <p>(b) The Borrower shall by September 30, 2019, or such later date as the Bank may agree, either:</p> <ul style="list-style-type: none"> <li>(i) extend the contracts of the PE and AO from the existing CDB funded NDM project – Disaster Risk Reduction and Climate Adaptation Project, for the duration of the Project, to include the duties and responsibilities of the PE and AO respectively described in the <b>Project Management Duties and Responsibilities</b>; or</li> <li>(ii) in accordance with the procurement procedures applicable to the Loan, select and engage a PE and AO to carry out the respective duties and responsibilities of the PE and AO described in the <b>Project Management Duties and Responsibilities</b>.</li> </ul> <p>The PE and AO shall report to the PC.</p>   |
| 14. | <b>Designated Account</b>        | <p>The Borrower may, for the purposes of, and during the implementation of the Project, open and maintain an account at a commercial bank or other financial institution in St. Vincent and the Grenadines acceptable to the Bank, through which all eligible expenditure under the Project, and only such activities, will be financed (the Designated Account).</p> <p>Where a Designated Account is established, the Borrower shall:</p> <ul style="list-style-type: none"> <li>(i) operate the Designated Account in accordance with the <b>Terms and Conditions for the Operation of the Designated Account</b>;</li> <li>(ii) establish and maintain internal controls for the proper operation of the Designated Account, including the use of statements of expenditure prepared and certified by the Borrower, in form and substance acceptable to the Bank, to support the payments and application; and (iii) retain the statements of expenditure and supporting documentation for inspection and verification and shall permit the Bank or its nominee to perform an annual performance audit of the Designated Account and all disbursements made against the statements of expenditure in relation to the Project.</li> </ul> |
| 15. | <b>Engagement of Consultants</b> | <ul style="list-style-type: none"> <li>(a) The Borrower shall, in accordance with the procurement procedures applicable to the Loan, select and engage consultant(s) to provide the <b>Engineering Services Consultancy</b>;</li> <li>(b) The Borrower shall, by March 31, 2019, either: <ul style="list-style-type: none"> <li>(i) extend the contract for the M&amp;E services consultant from the existing CDB funded NDM project – Disaster Risk Reduction and Climate Adaptation Project, to</li> </ul> </li> </ul>   |

| No. | Subject                                       | Terms and Conditions of the Loan  |
|-----|---|---|
|     |   | <p>include the duties described in the TOR for the <b>M&amp; E Consultancy</b>; or</p> <p>(ii) in accordance with the procurement procedures applicable to the Loan, select and engage an M&amp;E consultant to carry out the duties as described in the TOR for the <b>M&amp; E Consultancy</b>.</p> <p>(c) The Borrower shall within a time frame acceptable to the Bank implement such recommendations from the abovementioned consultancies, as may be acceptable to the Bank.</p>  |
| 16. | <b>Engagement of Contractors</b>              | The Borrower shall, in accordance with the procurement procedures applicable to the Loan, select and engage contractors to carry out the works to be financed by the Loan.  |
| 17. | <b>Maintenance of Infrastructure</b>          | <p>The Borrower shall:</p> <p>(a) keep the buildings, works and other infrastructure financed from the Loan, or cause the same to be kept, in good repair and condition and shall provide the financial and other resources required to adequately maintain the infrastructure financed from the Loan; and</p> <p>(b) through MTW, undertake annual condition assessments of the Project infrastructure, commencing no later than 12 months after the certificate of practical completion, or its equivalent, is issued by the Engineering Services Consultants. The assessments shall be conducted under the supervision of the Chief Engineer, MTW.</p> |
| 18. | <b>Additional Funds</b>                       | The Borrower shall be responsible for meeting any amount by which the total cost of the Project exceeds <i>fifteen million, seven hundred and eight thousand United States dollars (USD15,708,000)</i> .  |
| 19. | <b>Borrower's Contribution to the Project</b> | <p>Except as the Bank may otherwise agree, the Borrower shall contribute to the Project an amount of no less than the equivalent of <i>two million nine hundred and thirteen thousand United States dollars (USD2,913,000)</i>.</p> <p>Except as the Bank may otherwise agree, the contribution which the Borrower is required to make to the Project shall be expended by the Borrower in a timely manner on the components of the Project allocated for financing by the Borrower as shown in the <b>Financing Plan</b>, up to the respective limits set out therein.</p>   |
| 20. | <b>Reports and Information</b>                | Except as the Bank may otherwise agree, the Borrower shall furnish or cause to be furnished to the Bank the reports and other   |

|  |  |  |
|--|--|--|
|  |  | information set out in the <b>Reporting Requirements</b> in the form specified therein, or in such form or forms as the Bank may require, not later than the times specified therein for so doing. |
|--|--|--|

**COMPONENT DETAILED DESCRIPTION**

**Project Preparation**

- The Project was informed by a feasibility study which included the preparation of an ESMP, detailed designs and bidding documents.

**Infrastructure Works**

- The primary activities which are to be undertaken as part of this contract include but are not limited to the following items:
  1. Three segments of construction of armour stone revetment (boulder size 1.1 – 1.37 metres [m] dia.) measuring 730 m in total length, to act as coastline protection.
  2. Backfilling of area in front of the newly constructed revetment, to act as a buffer zone between the existing infrastructure and the sea.
  3. Construction of a 350 m long reinforced concrete retaining wall, measuring 2.5 – 4.0 m in height.
  4. Construction of a 250 m long rubble masonry retaining wall measuring 3.0 – 5.0 m in height.
- Other construction activities includes approximately 100m of paved walkways and 900 m<sup>2</sup> of landscaping.

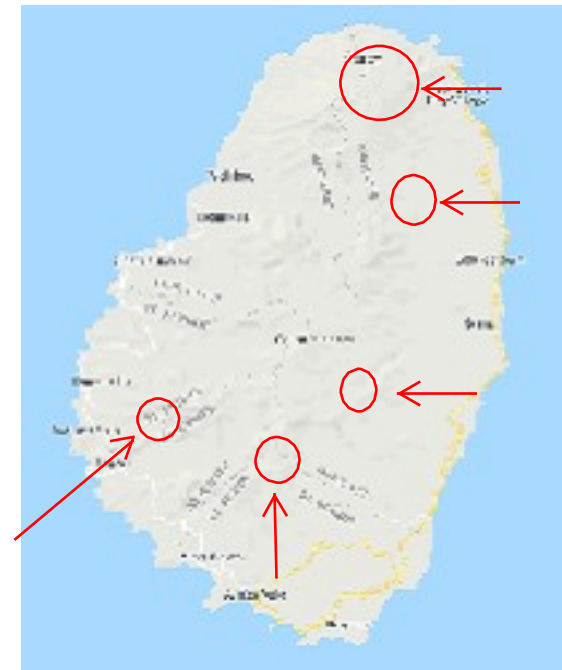
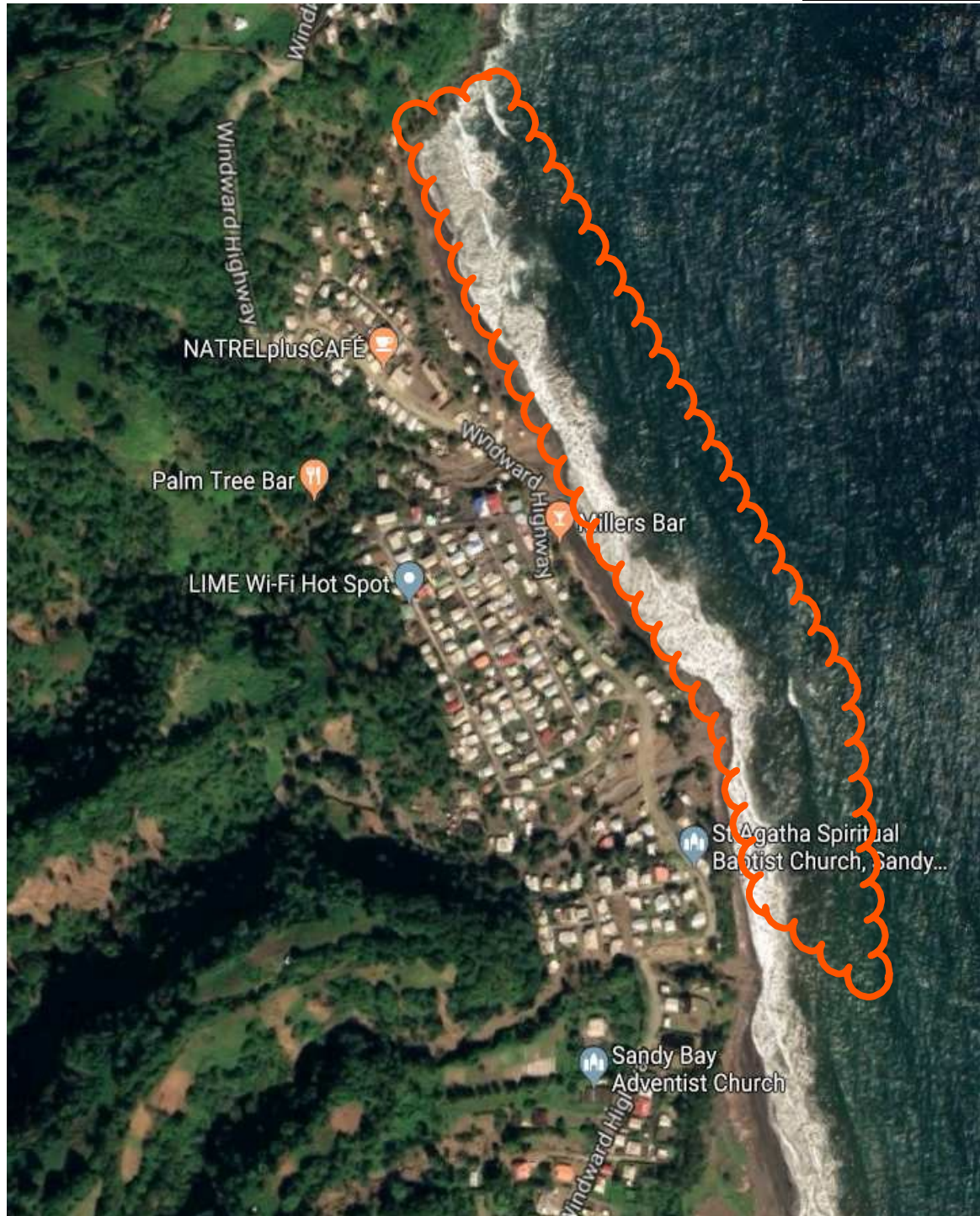
**Engineering and construction-related services**

- This component involves the engagement of consultancy services to undertake preparation of bidding documents for the works. In addition, the services involve construction supervision that includes performing tender evaluation, contract administration, construction supervision, progress reporting, certification of payments, and inspection services during the defects liability period as well as the preparation of a Project Completion Report (PCR). The TOR for the consultancy services can be found in Appendix 2.2.2.

**Project Management**

- The project will be implemented by the project team (PT) financed by CDB for similar disaster mitigated projects. The costs associated with a PC, AO, Information and Communication Technology, transportation, office equipment and supplies, as well as office space for the accommodation of PT, are included in GOSVG's counterpart contribution. CDB will finance the cost of contract for PE and M&E.

**MAP OF PROJECT AREA**



Sandy Bay

Windward Highway

Argyle Int'l Airport

South  
Leeward  
Highway



Vigie Highway

Project Site - Sandy Bay Sea Defences  
Resilience Project



**DRAFT TERMS OF REFERENCE**  
**ENGINEERING SERVICES CONSULTANCY**

**1. BACKGROUND**

1.1 The Government of St. Vincent and the Grenadines (GOSVG) has approached the Caribbean Development Bank (CDB) for proactive assistance for Sandy Bay Sea Defences Resilience Project to improve GOSVG's national disaster management.

1.2 The Coastal Study Report for Sandy Bay and Dark View (2014) documented a coastal erosion rate of 2.5 to 3m per year along the Sandy Bay coastline. The property and livelihoods of several vulnerable households in the poor, rural Sandy Bay community, as well as vital social and economic services upon which they depend, face an urgent ongoing and increasingly severe threat due to their exposure to coastal hazards and the rapid rate of erosion. In addition, the Windward Highway is routed immediately adjacent to the coast at Sandy Bay and is also at risk of damage due to flooding and storm surge. There is no redundancy in the main road network at this location, and the Windward Highway provides the only access to popular attractions in the north-eastern section of the coast such as La Soufriere Volcano, the indigenous Garifuna population, and recreational parks in Sandy Bay, Ouia and Fancy and to key economic activities such as the geothermal site currently under development.

**2. OBJECTIVE**

2.1 The objective of this consultancy is to assist GOSVG in the tendering process necessary for the procurement of a Contractor, project management of the Sandy Bay Sea Defences Resilience Project, inclusive of contractor supervision and contract administration throughout the project implementation process, inclusive of the defects liability period. The consultancy would also be responsible for post-construction reporting.

**3. SCOPE OF WORK**

3.1 The consultant(s) shall be solely responsible for the timely completion of reports; and the effectiveness of contractor supervision.

3.2 The tasks will include, but not be limited to:

- (a) Assisting GOSVG during the Tender Period. This includes conducting a site visit with tenderers, responding through the Ministry of Transport, Works, Urban Development and Local Government (MTW) to queries raised by tenderers during the Bid Period, evaluating tender submissions and presenting a comprehensive Tender Evaluation Report with recommendations to MTW, who will lead the negotiation process with the first-ranked Contractor and providing assistance with establishing a contract with the Contractor.
- (b) Carrying out the supervision services related to the construction of Sandy Bay Sea Defence Resilience Project which consists of:

- (i) Three segments of construction of armour stone revetment measuring 730m in total length, to act as coastline protection;
  - (ii) Backfilling of area in front of the newly constructed revetment, to act as a buffer zone between the existing infrastructure and the sea;
  - (iii) Construction of a 350 m long reinforced concrete retaining wall;
  - (iv) Construction of a 250 m long rubble masonry retaining wall; and
  - (v) Auxiliary works such as constructing gazebo, landscaping and paved walkways.
- (c) Assigning an experienced Resident Engineer, acceptable to MTW, together with the necessary site staff as shall be approved in writing by the Employer. The Resident Engineer will be responsible for reporting directly to, and coordinating with, the Project Execution Unit, MTW, assigned to the Project.
- (d) Representing the interest of GOSVG *vis-à-vis* the Contractor in any matter related to the construction contract and the proper execution thereof.
- (e) Furnishing for the use of the Contractors, all necessary ground and topographic controls for the establishment of road alignments and grades including work area limits for quarries, haul roads, etc.
- (f) Reviewing and recommending for approval, the Contractor's work schedule or revisions thereto including a critical path diagram for the construction of the Project and any such plans or programmes that the Contractor is obliged to furnish for the Engineer's approval. The consultant(s) shall also prepare an initial disbursement schedule based on the approved work schedule.
- (g) Assessing the adequacy of all inputs such as materials and labour provided by the Contractor and his methods of work in relation to the required rate of progress and, when required, take appropriate action in order to expedite progress. The consultant(s) shall also keep and regularly update a list of the Contractor's equipment (and its condition) to ensure compliance with the list of equipment which the Contractor pledged in his bid.
- (h) Inspecting and evaluating all Contractor installations, housing, shops and warehouses, and other accommodations to ensure compliance with the terms and conditions of contract documents.
- (i) Examining and making recommendations on all claims from the Contractor for time extension, extra compensations, work or expenses, or other similar matters.
- (j) Negotiating new rates with the Contractor for additional work and making requisite recommendations for approval, should the rates set out in the contract not be applicable.
- (k) Certifying work done for payment and determining the amount to be added to, or deducted from, payments to the Contractor for any additional work or work omitted.
- (l) Computing quantities of approved and accepted work and materials, and checking and certifying the Contractor's monthly and final payment certificates. The consultant(s) shall also maintain up-to-date records of remaining quantities to be incorporated in the work, and the cost estimates relating thereto, broken down into local and foreign components.

- (m) Arranging the execution of works related to the provisional sums in the construction contract and determining the value of such works within the scope of the said contract.
- (n) Reporting periodically on the progress of works, the Contractor's performance, quality of works and the Project's financial status and forecasts. Periodic reports shall be prepared and transmitted to the Ministry showing quantities incorporated in the work at the end of each pay period, and also showing monies earned by and due to the Contractor(s).
- (o) Proposing and presenting for approval any changes in the plans deemed necessary for the completion of works including information or any effect the changes may have on the contract amount and the time of completion of the Project, and prepare all necessary Variation Orders including altering plans and specifications and other details. Inform the employer of problems or potential problems which might arise in connection with any construction contract and make recommendations for possible solutions.
- (p) maintaining an approved representative at the site during all times the Contractor is working, to supervise the work and to issue instructions, as required;
- (q) furnishing timely assistance and direction to contractors in all matters related to interpretation of the contract documents, ground survey controls, quality control testing, and other matters relating to contract and progress of the Project;
- (r) organising the supervision of the works with proper allocation of responsibilities to the individual inspectors and supervise their work in order to ensure that it is effectively executed;
- (s) compiling systematic records of the inspector's findings and what actions have been implemented as a result thereof;
- (t) preparing and maintaining inspection and engineering reports and records to adequately document the progress and performance of the works;
- (u) reviewing all Contractor's working drawings, shop drawings, erection drawings, and drawings for temporary works, and act as appropriate thereon;
- (v) performing verification surveys of the Contractor's initial stake-out surveys for centreline alignment, structures location surveys and vertical control bench marks; performing initial cross-section and periodic and final survey measurements of completed and accepted works or partial works to determine quantities; and performing settlement control;
- (w) ensuring the receipt of, and maintaining as permanent records, all warranties required under terms of the contract documents for materials and equipment accepted and incorporated in the Project. All local materials incorporated in the Project, and their source, are also to be recommended for approval. Ensure that as-built drawings shall be prepared for all works as the work progresses;
- (x) The consultant(s) shall take the necessary steps to oversee that all test samplings are carried out in the field and perform such tests as can be made in the field laboratory arranged by the Contractor, to maintain quality control based on the specified standards. The

consultant(s) shall be responsible for all testing and shall notify the Contractor(s) of any defects in his work and stop operations connected with the defective works until the defects are rectified.

- (y) Inspecting the safety and environmental protection aspects of construction works and methods to ensure that every reasonable measure has been taken to protect life, environment and property, and ensure that traffic circulation and proper detours are provided by the Contractor at all times.
- (z) Participating in an inspection of the works, made jointly by representatives of GOSVG and the Contractor, upon 97% completion of the works and following a written request of the Contractor. Should the works prove to be substantially complete, the consultant(s) will assist in preparing the Certificate of Substantial Completion to be signed by the members of the inspection team. Should the works not be acceptable, the Contractor shall be informed in writing of the items that need to be rectified.
- (aa) When in the opinion of the inspection team, works are considered substantially complete but there remain outstanding works to be completed by the Contractor, the consultant(s) will assist in ensuring that the Contractor signs a Certificate of Outstanding Work, before the Recommendation of Substantial Completion becomes effective.
- (bb) Performing any and all other items of works not specifically mentioned above, but which are necessary and essential to successfully supervise and control the construction activities in accordance with the plans, specifications and terms of contract. The consultant's responsibility for the site supervision of the works shall continue until the Contractor has completed all outstanding works to the satisfaction of GOSVG.
- (cc) Carrying out the necessary inspection, specifying and supervising any remedial works to be carried out as well as participating in the final inspection and preparing the Recommendation of Final Acceptance with its effective date, to be signed by all members of the inspecting team.

#### **4. REPORTING REQUIREMENTS AND DELIVERABLES**

4.1 The Consultant(s) shall provide the following documents and reports to MTW:

- (a) **Progress Reports:** By the 10<sup>th</sup> day of each month submit 12 copies of a Monthly Progress Report in the approved form, briefly and concisely describing all construction activities and progress for the previous month, and report on environmental monitoring during construction. Problems encountered, or problems anticipated, shall be clearly stated, together with steps taken or recommendations for their correction. These reports shall also list the Contractor's equipment and work force disaggregated by sex and age. It will also indicate the work to be performed during the coming month, expenditure record, provide quality cost projections to the end of the project and current estimates of final cost and completion date.
- (b) **Final Report:** Within two months of the issue of the certificate of practical completion, prepare a Final Report on construction of the Project, summarising the construction activities, contract changes, claims or disputes or any other substantive matters having an effect on the amount, cost and progress of the work. The number of copies of this report will be 12.

- (c) **As-Built Drawings and Site Documents:** Within one month of the issue of the certificate of practical completion, provide GOSVG with one full size set (A1 size) of 'as-built' reproducible plans on stable-base material showing final details of the Project as completed, together with all data, records, field books etc., properly indexed and catalogued.

**5. IMPLEMENTATION ARRANGEMENTS**

5.1 GOSVG will appoint a Project Coordinator (PC). The PC will facilitate the work of the consultant(s) and make available all relevant studies, reports and data, relevant to the completion of the exercise and will act as liaison between the consultant(s), GOSVG officials, and stakeholders.

**6. QUALIFICATIONS AND EXPERIENCE**

6.1 The consulting team should consist of persons having the appropriate professional and academic qualifications and a minimum of 10 years' relevant experience in the areas of transportation engineering, structural/bridge engineering, environmental specialisation, social specialisation, and construction supervision. Post Graduate qualifications in the required fields as well as specific experience in the Caribbean will be an asset.

**7. DURATION**

7.1 The planned completion period for the construction works is 36 months, this will be followed a Defects Liability period of 12 months which will require part-time input from the consultancy service. The consultant(s) will also be required to assist GOSVG in the tendering process for procurement of the Contractor. The total duration of the consultancy service is not expected to exceed 52 months.

**8. COMMENTS BY THE CONSULTANT(S)**

8.1 The Consultant(s) are requested to make comments on, and suggestions for, improvements to these Terms of Reference. The financial implications, if any, of these recommendations should be indicated separately in the Financial Proposal.

**BUDGET – BASE COST (USD)**

| <b>Item</b>  | <b>CDB</b>       |
|--|------------------|
| 1. Team Principal  |                  |
| 2. Resident Engineer   |                  |
| 3. Quality Control/Materials Specialist                            |                  |
| 4. Environmental/Social Specialist                                 |                  |
| <b>Sub Total</b>   | <b>1,190,000</b> |
| 5. Technical Surveys, Reports and Drawings, Accommodation, Airfare |                  |
| <b>Total</b>   | <b>1,190,000</b> |

## RESULTS MONITORING PLAN

| <b>Indicator</b>   | <b>Baseline</b>    | <b>Year 2018</b> | <b>Year 2019</b> | <b>Year 2020</b> | <b>Year 2021</b> | <b>Year 2022</b> | <b>Responsibility for Data Collection</b> |
|--|--------------------|------------------|------------------|------------------|------------------|------------------|---|
| 1.1 1. 1. Reduced rate of coastal erosion along the constructed sea defence by December 2022, from 2.5 – 3.0m per year to 0.5. (1/150 return period) (#) | 3.0;<br>12/13/2018 |                  |                  |                  |                  |                  | MTW                                       |

| <b>Indicator</b>  | <b>Baseline</b>  | <b>Year 2018</b> | <b>Year 2019</b> | <b>Year 2020</b> | <b>Year 2021</b> | <b>Year 2022</b> | <b>Responsibility for Data Collection</b> |
|---|------------------|------------------|------------------|------------------|------------------|------------------|---|
| 1.1 Sea Defences/ Landslip Protection/ Urban Drainage (Km)                            | 0;<br>12/13/2018 |                  | 0                | .2               | .5               | .7               | MTW; PC                                   |
| 2.1 Number of contractors and community members sensitised (disaggregated by sex) (#) | 0;<br>12/13/2018 |                  |                  |                  |                  |                  | PC  |

**APPENDICES TO CHAPTER 3 - FINANCING PLAN**

**PROJECT COSTS AND PHASING PLAN**

## PROJECT COSTS PHASING AND FINANCING PLAN

| Components                                    | OCR-USD                     | SDF 9                 | Total             | COUNTERPART      |                                       | Total             |
|---|-----------------------------|-----------------------|-------------------|------------------|---------------------------------------|-------------------|
|   | Equity and Market Resources | SDF Resources (Loans) |                   | GOSVG            | Executing Agency Counterpart Forecast |                   |
| <b>2019 TOTAL</b>                             |                             |                       |                   |                  |                                       |                   |
| Project Preparation                           |                             |                       | -                 |                  | -                                     |                   |
| Infrastructure Works                          |                             |                       |                   |                  |                                       |                   |
| Engineering and Construction-related Services | 529,566                     | 302,384               | 831,950           | 1,011,768        | -                                     | 1,843,718         |
| Project Management                            |                             |                       |                   |                  | -                                     |                   |
| <b>Base Cost</b>                              |                             |                       |                   |                  | -                                     |                   |
| Physical Contingency                          |                             |                       |                   |                  | -                                     |                   |
| Price Contingency                             |                             |                       |                   |                  | -                                     |                   |
| <b>Total Project Cost</b>                     |                             |                       |                   |                  | -                                     |                   |
| Interest During Implementation                |                             |                       |                   |                  | -                                     |                   |
| Commitment Fees                               |                             |                       |                   |                  | -                                     |                   |
| <b>Total Financing</b>                        | <b>652,370</b>              | <b>370,543</b>        | <b>1,022,913</b>  | <b>1,164,380</b> | -                                     | <b>2,187,293</b>  |
| <b>Percentage Financing</b>                   | <b>29.83%</b>               | <b>16.94%</b>         | <b>46.77%</b>     | <b>53.23%</b>    | -                                     | <b>100.00%</b>    |
| <b>2020 TOTAL</b>                             |                             |                       |                   |                  |                                       |                   |
| Infrastructure Works                          |                             |                       |                   |                  | -                                     |                   |
| Engineering and Construction-related Services | 1,919,740                   | 1,209,536             | 3,129,276         | 509,072          | -                                     | 3,638,348         |
| Project Management                            |                             |                       |                   |                  | -                                     |                   |
| <b>Base Cost</b>                              | <b>1,919,740</b>            | <b>1,209,536</b>      | <b>3,129,276</b>  | <b>509,072</b>   | -                                     | <b>3,638,348</b>  |
| Physical Contingency                          | 335,732                     | 241,900               | 577,632           | 51,260           | -                                     | 628,892           |
| Price Contingency                             | 90,800                      | 58,680                | 149,480           | 20,100           | -                                     | 169,580           |
| <b>Total Project Cost</b>                     | <b>2,346,272</b>            | <b>1,510,116</b>      | <b>3,856,388</b>  | <b>580,432</b>   | -                                     | <b>4,436,820</b>  |
| Interest During Implementation                | 91,200                      | 11,260                | 102,460           | -                | -                                     | 102,460           |
| Commitment Fees                               | 62,000                      | -                     | 62,000            | -                | -                                     | 62,000            |
| <b>Total Financing</b>                        | <b>2,499,472</b>            | <b>1,521,376</b>      | <b>4,020,848</b>  | <b>580,432</b>   | -                                     | <b>4,601,280</b>  |
| <b>Percentage Financing</b>                   | <b>54.32%</b>               | <b>33.06%</b>         | <b>87.39%</b>     | <b>12.61%</b>    | -                                     | <b>100.00%</b>    |
| <b>2021 TOTAL</b>                             |                             |                       |                   |                  |                                       |                   |
| Infrastructure Works                          |                             |                       |                   |                  | -                                     |                   |
| Engineering and Construction-related Services | 1,917,246                   | 1,209,540             | 3,126,786         | 509,080          | -                                     | 3,635,866         |
| Project Management                            |                             |                       |                   |                  | -                                     |                   |
| <b>Base Cost</b>                              | <b>1,917,246</b>            | <b>1,209,540</b>      | <b>3,126,786</b>  | <b>509,080</b>   | -                                     | <b>3,635,866</b>  |
| Physical Contingency                          | 335,482                     | 241,900               | 577,382           | 51,264           | -                                     | 628,646           |
| Price Contingency                             | 137,360                     | 88,896                | 226,256           | 30,400           | -                                     | 256,656           |
| <b>Total Project Cost</b>                     | <b>2,390,088</b>            | <b>1,540,336</b>      | <b>3,930,424</b>  | <b>590,744</b>   | -                                     | <b>4,521,168</b>  |
| Interest During Implementation                | 213,400                     | 26,694                | 240,094           | -                | -                                     | 240,094           |
| Commitment Fees                               | 36,600                      | -                     | 36,600            | -                | -                                     | 36,600            |
| <b>Total Financing</b>                        | <b>2,640,088</b>            | <b>1,567,030</b>      | <b>4,207,118</b>  | <b>590,744</b>   | -                                     | <b>4,797,862</b>  |
| <b>Percentage Financing</b>                   | <b>55.03%</b>               | <b>32.66%</b>         | <b>87.69%</b>     | <b>12.31%</b>    | -                                     | <b>100.00%</b>    |
| <b>2022 TOTAL</b>                             |                             |                       |                   |                  |                                       |                   |
| Infrastructure Works                          |                             |                       |                   |                  | -                                     |                   |
| Engineering and Construction-related Services | 1,917,248                   | 1,209,540             | 3,126,788         | 500,080          | -                                     | 3,626,868         |
| Project Management                            |                             |                       |                   |                  | -                                     |                   |
| <b>Base Cost</b>                              | <b>1,917,248</b>            | <b>1,209,540</b>      | <b>3,126,788</b>  | <b>500,080</b>   | -                                     | <b>3,626,868</b>  |
| Physical Contingency                          | 335,482                     | 241,900               | 577,382           | 50,364           | -                                     | 627,746           |
| Price Contingency                             | 184,940                     | 119,724               | 304,664           | 27,000           | -                                     | 331,664           |
| <b>Total Project Cost</b>                     | <b>2,437,670</b>            | <b>1,571,164</b>      | <b>4,008,834</b>  | <b>577,444</b>   | -                                     | <b>4,586,278</b>  |
| Interest During Implementation                | 154,700                     | 42,587                | 197,287           | -                | -                                     | 197,287           |
| Commitment Fees                               | 9,900                       | -                     | 9,900             | -                | -                                     | 9,900             |
| <b>Total Financing</b>                        | <b>2,602,270</b>            | <b>1,613,751</b>      | <b>4,216,021</b>  | <b>577,444</b>   | -                                     | <b>4,793,465</b>  |
| <b>Percentage Financing</b>                   | <b>54.29%</b>               | <b>33.67%</b>         | <b>87.95%</b>     | <b>12.05%</b>    | -                                     | <b>100.00%</b>    |
| <b>TOTALS</b>                                 |                             |                       |                   |                  |                                       |                   |
| Project Preparation                           |                             |                       | -                 |                  | -                                     |                   |
| Infrastructure Works                          |                             |                       |                   |                  |                                       |                   |
| Engineering and Construction-related Services | 6,283,800                   | 3,931,000             | 10,214,800        | 2,530,000        | -                                     | 12,744,800        |
| Project Management                            |                             |                       |                   |                  | -                                     |                   |
| <b>Base Cost</b>                              | <b>6,283,800</b>            | <b>3,931,000</b>      | <b>10,214,800</b> | <b>2,530,000</b> | -                                     | <b>12,744,800</b> |
| Physical Contingency                          | 1,093,300                   | 786,200               | 1,879,500         | 275,800          | -                                     | 2,155,300         |
| Price Contingency                             | 425,900                     | 274,500               | 700,400           | 107,200          | -                                     | 807,600           |
| <b>Total Project Cost</b>                     | <b>7,803,000</b>            | <b>4,991,700</b>      | <b>12,794,700</b> | <b>2,913,000</b> | -                                     | <b>15,707,700</b> |
| Interest During Implementation                | 463,200                     | 81,000                | 544,200           | -                | -                                     | 544,200           |
| Commitment Fees                               | 128,000                     | -                     | 128,000           | -                | -                                     | 128,000           |
| <b>Total Financing</b>                        | <b>8,394,200</b>            | <b>5,072,700</b>      | <b>13,466,900</b> | <b>2,913,000</b> | -                                     | <b>16,379,900</b> |
| <b>Percentage Financing</b>                   | <b>51.25%</b>               | <b>30.97%</b>         | <b>82.22%</b>     | <b>17.78%</b>    | -                                     | <b>100.00%</b>    |



**GENDER MARKER ANALYSIS**

| <b>Project Cycle Stage</b>  | <b>Criteria</b>  | <b>Score</b> |
|-----------------------------|--|--------------|
| Analysis 1                  | Consultations with relevant categories of males and females and relevant gender-related public/ private sector organisations and Non-Governmental/ Community-Based Organisations will take / have taken place  | Yes          |
| Analysis 2                  | Socioeconomic, Sector and/or Institutional analysis considers gender risks and/or gender disparities that impact the achievement of project outcomes.  | Yes          |
| Design 1                    | Project interventions / policies address existing gender disparities.  | No           |
| Design 2                    | Project objective / outcome includes the enhancement of gender equality or the design of gender-responsive policies or guidelines.   | No           |
| Implementation 1            | Implementation arrangements include either:<br>Capacity building initiatives to enhance gender mainstreaming of the executing and/or implementing agency.<br>Or<br>Active participation of representatives of gender-relevant stakeholders in project execution. | No           |
| Implementation 2            | Terms of Reference of consultancy/project coordinating unit/project management unit includes responsibilities and resources, including budgets for gender mainstreaming.   | No           |
| Monitoring and Evaluation 1 | Sex-disaggregated data included in the baselines, indicators and targets of the RMF.<br>Or<br>Collection of sex-disaggregated data is part of the project.   | Yes          |
| Monitoring and Evaluation 2 | At least one gender-specific indicator at the outcome and/or output level in the RMF or included in tranche releases of PBLs.  | No           |

| <b>Analysis</b> | <b>Design</b> | <b>Implementation</b> | <b>Monitoring &amp; Evaluation</b> | <b>Score</b> | <b>Code</b>                  |
|-----------------|---------------|-----------------------|------------------------------------|--------------|------------------------------|
| 1.0             | 0.0           | 0.0                   | 0.5                                | 1.5          | Marginally Mainstreamed (MM) |

**APPENDICES TO CHAPTER 5 - RISK ASSESSMENT AND MITIGATION**

*There are no appendices related to Chapter 5 (Risk Assessment and Mitigation)*

**APPENDIX 6.1**

**PROJECT IMPLEMENTATION SCHEDULE**

**Project Specific Milestones**

**ESTIMATED QUARTERLY DISBURSEMENT SCHEDULE**

| <b>Year</b>      | <b>Quarter</b> | <b>OCR-USD</b>   | <b>SDF 9</b>     | <b>Finance Charges</b> | <b>Total</b>      | <b>Cumulative</b> |
|------------------|----------------|------------------|------------------|------------------------|-------------------|-------------------|
| 2019             | 2019 - Q1      | 7,800            |                  | -                      | 7,800             | 7,800             |
|                  | 2019 - Q2      | 16,448           |                  | -                      | 16,448            | 24,248            |
|                  | 2019 - Q3      | 19,753           |                  | -                      | 19,753            | 44,001            |
|                  | 2019 - Q4      | 584,969          | 370,084          | 23,859                 | 978,912           | 1,022,913         |
| <b>Sub-total</b> |                | <b>628,970</b>   | <b>370,084</b>   | <b>23,859</b>          | <b>1,022,913</b>  | <b>1,022,913</b>  |
| 2020             | 2020 - Q1      | 583,817          | 377,529          | 30,891                 | 992,237           | 2,015,150         |
|                  | 2020 - Q2      | 583,817          | 377,529          | 37,639                 | 998,985           | 3,014,135         |
|                  | 2020 - Q3      | 594,819          | 377,529          | 44,490                 | 1,016,838         | 4,030,973         |
|                  | 2020 - Q4      | 583,819          | 377,529          | 51,440                 | 1,012,788         | 5,043,761         |
| <b>Sub-total</b> |                | <b>2,346,272</b> | <b>1,510,116</b> | <b>164,460</b>         | <b>4,020,848</b>  | <b>5,043,761</b>  |
| 2021             | 2021 - Q1      | 603,709          | 385,084          | 58,407                 | 1,047,200         | 6,090,961         |
|                  | 2021 - Q2      | 595,459          | 385,084          | 65,583                 | 1,046,126         | 7,137,087         |
|                  | 2021 - Q3      | 595,460          | 385,084          | 72,662                 | 1,053,206         | 8,190,293         |
|                  | 2021 - Q4      | 595,460          | 385,084          | 80,042                 | 1,060,586         | 9,250,879         |
| <b>Sub-total</b> |                | <b>2,390,088</b> | <b>1,540,336</b> | <b>276,694</b>         | <b>4,207,118</b>  | <b>9,250,879</b>  |
| 2022             | 2022 - Q1      | 615,610          | 392,791          | 87,435                 | 1,095,836         | 10,346,715        |
|                  | 2022 - Q2      | 607,360          | 392,791          | 94,842                 | 1,094,993         | 11,441,708        |
|                  | 2022 - Q3      | 607,350          | 392,791          | 12,750                 | 1,012,891         | 12,454,599        |
|                  | 2022 - Q4      | 607,350          | 392,791          | 12,160                 | 1,012,301         | 13,466,900        |
| <b>Sub-total</b> |                | <b>2,437,670</b> | <b>1,571,164</b> | <b>207,187</b>         | <b>4,216,021</b>  | <b>13,466,900</b> |
| <b>Total</b>     |                | <b>7,803,000</b> | <b>4,991,700</b> | <b>672,200</b>         | <b>13,466,900</b> | <b>13,466,900</b> |

**PROCUREMENT PLAN**  
**(All Estimated Costs Are In USD)**

**A. General**

**1. Project Information**

Country: St. Vincent and the Grenadines

Borrower: Government of St. Vincent and the Grenadines

Project Name: Sandy Bay Sea Defences Resilience Project

Project Implementing Agency: Ministry of Transport Works, Urban Development and Local Government  
Project Executing Agency:

2. **Bank's Approval Date of the Procurement Plan:** December 13, 2018

3. **This Procurement Plan is valid until:** December 18, 2019

4. **Prior Review Thresholds:** Procurement decision subject to prior review by the Bank as stated in Appendix 2 to the Guidelines for Procurement:

| <b>Procurement Method</b>              | <b>Prior Review Threshold</b> | <b>Comments</b> |
|--|-------------------------------|-----------------|
| ICB (Goods)                            | █                             |                 |
| NCB (Goods)                            | █                             |                 |
| QCBS and QBS                           | █                             |                 |
| ICS and CQS                            | █                             |                 |
| LIB (Goods)                            | █                             |                 |
| DC (Goods and Non-Consulting Services) | █                             |                 |
| ICB (Works)                            | █                             |                 |

5. **Reference to relevant Procurement Guidelines**

- CDB's Guidelines for Procurement (2006)
- CDB's Guidelines for the Selection and Engagement of Consultants by Recipients of CDB Financing (2011)

6. **Any Other Special Procurement Arrangements**

7. **Procurement Waivers**

No Procurement Waivers were required as part of this Appraisal

**B. Goods and Works and Non-Consulting Services**

| <b>Ref No.</b> | <b>Contract (Description)</b> | <b>Estimated Cost</b> | <b>Procurement Method</b> | <b>Prequalification (Yes/No)</b> | <b>Review by Bank (Prior/Post)</b> | <b>Expected Bid-Opening Date</b> | <b>Comments</b>   |
|----------------|-------------------------------|-----------------------|---------------------------|----------------------------------|------------------------------------|----------------------------------|---|
|                | Sea Defence Sandy Bay         | —                     | ICB                       | No                               | Prior                              | August 2019                      | Expected Start December 2019. \$590,000 of the expected cost is Non-Bank Financed (NBF) |

**C. Consulting Services**

| <b>Ref No.</b> | <b>Assignment (Description)</b> | <b>Estimated Cost</b> | <b>Selection Method</b> | <b>Review by Bank (Prior/Post)</b> | <b>Expected Proposal Submission Date</b> | <b>Comments</b>  |
|----------------|---------------------------------|-----------------------|-------------------------|------------------------------------|--|--|
|                | Accounting Officer              | ■                     | SSS                     | Prior                              | January 2019                             | Continuation of assignment procured in accordance with CDB Guidelines under the current Natural Disaster Management (NDM) Project. |
|                | Engineering Services            | ■                     | QCBS                    | Prior                              | July 2019                                |  |
|                | M&E Consultant                  | ■                     | SSS                     | Prior                              | November 2019                            | Continuation of assignment procured in accordance with CDB Guidelines under the current Natural Disaster Management (NDM) Project. |
|                | Project Coordinator             | ■                     | SSS                     | Prior                              | January 2019                             | Continuation of assignment procured in accordance with CDB Guidelines under the current Natural Disaster Management (NDM) Project. |
|                | Project Engineer                | ■                     | SSS                     | Prior                              | January 2019                             | Continuation of assignment procured in accordance with CDB Guidelines under the current Natural Disaster Management (NDM) Project. |

**D. Summary of Proposed Procurement Arrangement**

| Project Components / Contracts                       | CDB<br>('000) |      |     | NBF<br>('000) |              | Total Cost<br>('000) |
|--|---------------|------|-----|---------------|--------------|----------------------|
|  | ICB           | QCBS | SSS | Counterpart   | Co-Financing |                      |
| <b>Infrastructure Works</b>                          | █             | -    | -   | █             | -            | █                    |
| Sea Defence Sandy Bay                                | █             | -    | -   | █             | -            | █                    |
| <b>Engineering and Construction-related Services</b> | -             | █    | -   | █             | -            | █                    |
| Engineering Services                                 | -             | █    | -   | █             | -            | █                    |
| <b>Project Management</b>                            | -             | -    | █   | █             | -            | █                    |
| Project Coordinator                                  | -             | -    | █   | █             | -            | █                    |
| Project Engineer                                     | -             | -    | █   | █             | -            | █                    |
| Accounting Officer                                   | -             | -    | █   | █             | -            | █                    |
| M&E Consultant                                       | -             | -    | █   | █             | -            | █                    |
| <b>Summary Costs</b>                                 | █             | █    | █   | █             | -            | █                    |



**Goods, Works and Non-Consultancy Services**

- NCB - National Competitive Bidding
- ICB - International Competitive Bidding
- LIB - Limited International Bidding
- RCB - Regional Competitive Bidding
- Shopping - Shopping
- DC - Direct Contracting
- FA - Force Account
- UCS - Use of Country Systems
- NBF - Non-Bank Financed
- Other

**Consultancy Services:**

- QCBS - Quality and Cost-Based Selection
- QBS - Quality-Based Selection
- FBS - Fixed Budget Selection
- LCS - Least-Cost Selection
- CQS - Consultants' Qualification Selection
- SSS - Single Source Selection
- ICS - Individual Consultants Selection
- UCS - Use of Country Systems
- NBF - Non-Bank Financed
- Other

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank's Information Disclosure Policy.

**APPENDIX 6.4**      **PROJECT MANAGEMENT DUTIES AND RESPONSIBILITIES**

**APPENDIX 6.4.1**

**DRAFT TERMS OF REFERENCE**  
**PROJECT TEAM**

1.      **PROJECT COORDINATOR**

1.1      The Project Coordinator (PC) will report to the Chief Engineer, Ministry of Transport, Works, Urban Development and Local Government. He/she will be responsible for coordinating and monitoring all aspects of the implementation of the Project. PC shall be assigned exclusively to the Project and will be supported by a Project Engineer (PE), an Administrative/Accounting Officer (AO) and administrative staff. PC's duties will include, but will not be limited to:

- (a)      revising the Results Monitoring Plan, including the collection of baseline data, for the Project;
- (b)      managing the selection and engagement of technical assistance consultants and supervising these consultancies;
- (c)      evaluation of bids and recommendation of the awards for the Engineering Services Consultants and construction contracts;
- (d)      overseeing the Engineering Services Consultancy and construction contracts;
- (e)      cost control;
- (f)      conducting community meetings including awareness-raising and sensitisation among residents in the Project community about job opportunities with emphasis on encouraging women to apply and keeping record of participants' attendance;
- (g)      expedition of the submission to Caribbean Development Bank (CDB) of claims for disbursement/reimbursement;
- (h)      liaising with CDB on all technical and administrative aspects of the Project;
- (i)      preparation and submission to CDB of a Quarterly Report on the Investment Cost of the Project in the form specified by CDB, within two weeks after the end of each calendar quarter, commencing with the quarter following the commencement of the assignment;
- (j)      keeping separate accounts for project-related expenditures and disbursement activities;
- (k)      submission to CDB within two days after the end of each fortnight, of fortnightly progress spreadsheet prepared by PE;

- (l) submission to CDB, within two weeks after the end of each month, of monthly reports prepared by the Engineering Services Consultants;
- (m) submission to CDB of annual report showing the level of road maintenance at the end of the preceding year;
- (n) submission to CDB of completion report within three months after the date of issue by the Engineering Services Consultants of a certificate of practical completion of the contract; and
- (o) preparation and submission to CDB of a Project Completion Report, within three months after practical completion of the works.

1.2 Prospective candidates should have a minimum of the following qualifications:

- (a) a Masters Degree or equivalent in Civil Engineering, Construction Management or Project Management with a minimum of 10 years' experience in the management and implementation of civil engineering projects; or
- (b) a Bachelors Degree or equivalent in Civil Engineering, Construction Management or Project Management with a minimum of 15 years' experience in the management and implementation of civil engineering projects.

## **2. PROJECT ENGINEER**

2.1 PE will report to PC and will mainly be responsible for assisting PC with the implementation of infrastructure works. His/her duties will include, but will not be limited to:

- (a) assisting PC with the supervision of the Engineering Services Consultants, including review of the monthly reports prepared by the Engineering Services Consultants;
- (b) assisting PC with the management and administration of the construction contracts;
- (c) preparation of the fortnightly progress spreadsheets within two days after the end of each fortnight for submission to PC; and
- (d) any other duties assigned by PC.

2.2 Prospective candidates must be civil engineers with a minimum of the following qualifications:

- (a) a Master's Degree or equivalent in a civil engineering discipline, Project Management, Construction Management or related subject, together with a minimum of five years' experience in engineering design and supervision, including road works, or project implementation; or
- (b) a Bachelor's Degree in civil engineering and a minimum of eight years' of suitable experience in engineering design and supervision, including road works or project implementation.

**3. ADMINISTRATIVE/ACCOUNTING OFFICER**

3.1 AO will report to PC and will mainly be responsible for keeping accounting records and preparing financial statements on expenditures for the Project Team (PT) and disbursement claims for Contractors and Engineering Services Consultants for submission to CDB. AO will also be responsible for the administrative duties of the PT. His/her duties will include, but will not be limited to:

- (a) prepare requests for disbursements from the financing agencies;
- (b) prepare monthly financial statements and supporting schedules;
- (c) prepare financial information for special reports for internal and external use;
- (d) review and track details of all claims from consultants and contractors; and
- (e) any other administrative duties assigned by PC.

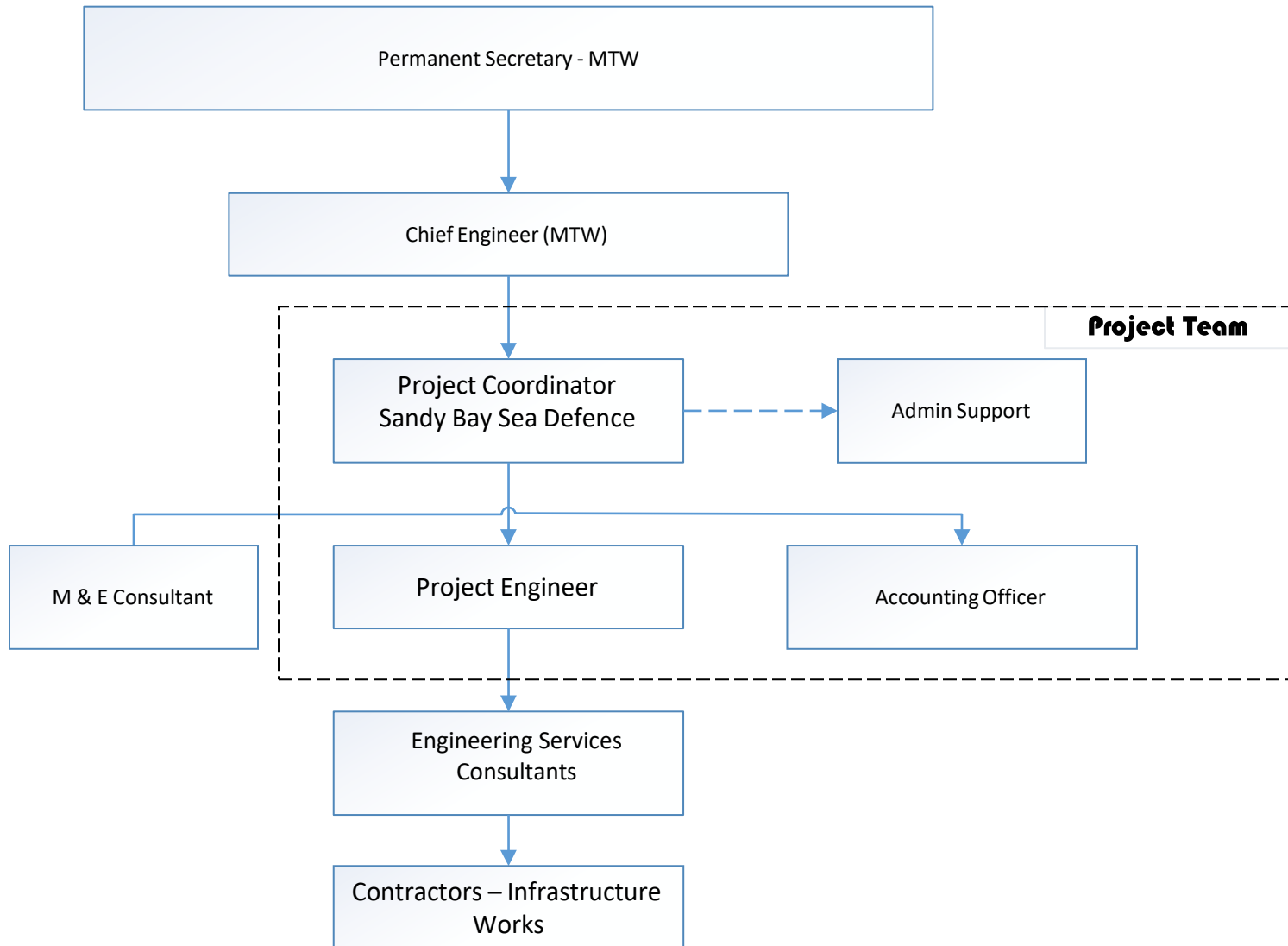
3.2 AO is expected to have a Bachelor's Degree in accounting or related field and a minimum of two years' experience in administration/accounting is required, in addition to proficiency in computer skills, including use of spreadsheets, database management and word processing. Good written and oral communications skills are required. Prior project-related experience would be an asset.

**TOTAL PROJECT MANAGEMENT BUDGET – BASE COST**  
**(000' USD)**

| <b>Item</b>   | <b>CDB</b> | <b>GOSVG</b> | <b>Total</b> |
|---|------------|--------------|--------------|
| <b>A. Professional Fees:</b>  |            |              | <b>984</b>   |
| <b>Sub-total</b>  |            |              | <b>984</b>   |
| <b>B. General Support:</b>  |            |              |              |
| 4. Office Accommodation, Staff Support<br>Local Transport and Communication |            | 60           | 60           |
| <b>Total</b>  |            |              | <b>1,038</b> |

**APPENDIX 6.5**      **PROJECT ORGANISATION CHART**

**APPENDIX 6.5.1**  
**PROJECT MANAGEMENT ORGANISATIONAL CHART**



**APPENDIX 6.6**      **IMPLEMENTATION SUPPORT PLAN**





## **APPENDIX 6.6.2**

### **IMPLEMENTATION SUPPORT PLAN**

1. CDB has been the principal partner for GOSVG in the financing of road infrastructure projects, particularly on the main road network. This experience, strengthened by the satisfactory progress being made on implementing the ongoing Sandy Bay Sea Defences Resilience Project, provides a sound background for providing implementation support to GOSVG. The implementation support will be provided as part of CDB's project supervision functions and will include, among other things:

- (a) reviewing implementation progress and achievement of project outcomes;
- (b) addressing implementation issues;
- (c) monitoring systems to ensure their continued adequacy through monitoring reports; audit reports and field visits; and
- (d) monitoring changes in risks and compliance with legal agreements, as needed.

The Implementation Support Plan (ISP) will be reviewed at least once a year to ensure that it continues to meet the implementation support needs of the Project. In addition to reviewing implementation progress, the ISP aims at providing technical support to the BMC in the achievement of the results.

2. The strategy for implementation support has been developed based on the design of the Project, its risk profile, and an assessment of the Borrower. The strategy remains a flexible tool that may be amended during project implementation in response to the changing needs of the Project and the Borrower/Implementing Agency.

#### **Strategy and Approach for Implementation Support**

3. Supervision of the Project will be undertaken by a team comprising the lead supervisor (Civil Engineer), supported by legal counsel and specialists in the areas of environment/disaster risk management; procurement; financial analysis; and social analysis. Formal supervision and field visits will be undertaken semi-annually. The first formal supervision activity will be the Project Launch Workshop (PLW). The objective of PLW is to review the implementation arrangements, train the project management in the use of CDB's fiduciary management and procurement systems, and discuss project supervision issues. PLW is scheduled for the third quarter of 2014, and arrangements will be finalised in consultation with GOSVG. The training provided during PLW on the Bank's financial management and procurement procedures and guidelines will be augmented during the semi-annual supervision visits, and support will be provided on a timely basis to respond to the client's needs.

4. The Supervision Coordinator will coordinate CDB's team to ensure that project implementation is consistent with the requirements as specified in the Procurement Plan, Terms and Conditions, and other legal documents. The Supervision Team will prepare annual Project Supervision Reports identifying the status of project implementation and any issue requiring the resolution of management. On the completion of the Project, or after 90% of the funds have been disbursed, Staff will conduct an Exit Workshop to assess project results, discuss implementation issues, and identify lessons. A draft PCR will be prepared and

discussed with the client during the Exit Workshop. The final PCR will be validated by the Office of Independent Evaluation (OIE). Staff will prepare a management response to the OIE's Validation Report. The Validation Report and Management's response will be presented to the Audit and Post-Evaluation Committee.

**TABLE 1: STAFF SKILLS REQUIRED**

| <b>Period</b>        | <b>Focus</b>  | <b>Skills and Resources Estimate</b> |           |  |
|----------------------|---|--------------------------------------|-----------|--|
| January – June 2019  | <u>Specific</u>   |                                      |           |  |
|                      | (1) Support in satisfying Conditions Precedent.   | Lead Project Supervisor              | 5 weeks   |  |
|                      | (2) Provide procurement support during preparation of draft prequalification documents, bidding documents, requests for proposals, draft procurement notices etc. and also with respect to resolving procurement bottlenecks, and similar issues. | Legal Counsel Financial              | 2 weeks   |  |
|                      |   | Analyst                              | 0.5 weeks |  |
|                      |   | Environmental Specialist             | 1 week    |  |
|                      |   | Social Specialist                    | 2 week    |  |
|                      |   | Procurement Specialist               | 1 week    |  |
|                      |   | Administrative Assistant             | 1 week    |  |
|                      |   | Divisional Secretary                 | 0.5 week  |  |
|                      |   | <u>General</u>                       |           |  |
| June – December 2019 | <u>Specific</u>   |                                      |           |  |
|                      | (1) Provide support during procurement of Contractors for works packages;   | Lead Project Supervisor              | 8 weeks   |  |
|                      | (2) Review of evaluation reports, and draft contracts for works and consultants.  | Legal Counsel Financial              | 0.5 weeks |  |
|                      |   | Analyst                              | 0.5 week  |  |
|                      |   | Environmental Specialist             | 0.5 week  |  |
|                      |   | Social Specialist                    | 3 weeks   |  |
|                      |   | Administrative Assistant             | 2 weeks   |  |
|                      |   | <u>General</u>                       |           |  |
|                      | (1) Monitor Project Budgeting and allocations.  |                                      |           |  |
|                      | (2) Monitor Project Physical Works progress and quality, including field trips.   |                                      |           |  |

| Period               | Focus  | Skills and Resources Estimate  |  |
|----------------------|--|--|--|
|                      | (3) Monitor Project Results Framework<br>(4) Provide technical support to PC and Executing Agency.<br>(5) Preparation of annual Project Supervision Report.<br>(6) Review and certification of requests for disbursement.<br>(7) Review of Monthly and Quarterly Reports.  | Divisional Secretary   | 1 week   |
| January – June 2020  | <u>Specific</u><br>(1) Provide support during procurement of Contractors for works packages;<br>(2) Review of evaluation reports, and draft contracts for works and consultants.<br><br><u>General</u><br>(1) Monitor Project Budgeting and allocations.<br>(2) Monitor Project Physical Works progress and quality, including field trips.<br>(3) Monitor Project Results Framework<br>(4) Provide technical support to PC and Executing Agency.<br>(5) Preparation of annual Project Supervision Report.<br>(6) Review and certification of requests for disbursement.<br>(7) Review of Monthly and Quarterly Reports. | Lead Project Supervisor<br><br>Legal Counsel Financial<br><br>Analyst<br><br>Environmental Specialist<br><br>Social Specialist<br><br>Administrative Assistant<br><br>Divisional Secretary | 8 weeks<br><br>0.5 weeks<br><br>0.5 week<br><br>0.5 week<br><br>3 weeks<br><br>2 weeks<br><br>1 week |
| June – December 2020 | <u>Specific</u><br>(1) Provide support during procurement of Contractors for works packages;<br>(2) Review of evaluation reports, and draft contracts for works and consultants.<br><br><u>General</u><br>(1) Monitor Project Budgeting and allocations.<br>(2) Monitor Project Physical Works progress and quality, including field   | Lead Project Supervisor<br><br>Legal Counsel Financial<br><br>Analyst<br><br>Environmental Specialist<br><br>Social Specialist<br><br>Administrative Assistant                             | 8 weeks<br><br>0.5 weeks<br><br>0.5 week<br><br>0.5 week<br><br>3 weeks<br><br>2 weeks               |

| Period               | Focus  | Skills and Resources Estimate   |  |
|----------------------|--|---|--|
|                      | trips.<br>(3) Monitor Project Results Framework<br>(4) Provide technical support to PC and Executing Agency.<br>(5) Preparation of annual Project Supervision Report.<br>(6) Review and certification of requests for disbursement.<br>(7) Review of Monthly and Quarterly Reports.  | Divisional Secretary  | 1 week   |
| January – May 2021   | <u>General</u><br>(1) Monitor Project Budgeting and allocations.<br>(2) Monitor Project Physical Works progress and quality, including field trips.<br>(3) Monitor Project Results Framework<br>(4) Provide technical support to PC and Executing Agency.<br>(5) Preparation of annual Project Supervision Report.<br>(6) Review and certification of requests for disbursement.<br>(7) Review of Monthly and Quarterly Reports. | Lead Project Supervisor<br><br>Legal Counsel Financial<br><br>Analyst<br><br>Environmental Specialist<br><br>Social Specialist (including Gender)<br><br>Administrative Assistant<br><br>Divisional Secretary | 10 weeks<br><br>0.5 weeks<br><br>0.5 weeks<br><br>2 weeks<br><br>3 weeks<br><br>1 week<br><br>0.5 week |
| June - December 2021 | <u>General</u><br>(1) Monitor Project Budgeting and allocations.<br>(2) Monitor Project Physical Works progress and quality, including field trips.<br>(3) Monitor Project Results Framework<br>(4) Provide technical support to PC and Executing Agency.<br>(5) Preparation of annual Project Supervision Report.<br>(6) Review and certification of requests for disbursement.<br>(7) Review of Monthly and Quarterly Reports. | Lead Project Supervisor<br><br>Legal Counsel Financial<br><br>Analyst<br><br>Environmental Specialist<br><br>Social Specialist (including Gender)<br><br>Administrative Assistant<br><br>Divisional Secretary | 10 weeks<br><br>0.5 weeks<br><br>0.5 weeks<br><br>2 weeks<br><br>3 weeks<br><br>1 week<br><br>0.5 week |

| <b>Period</b>              | <b>Focus</b>   | <b>Skills and Resources Estimate</b> |           |
|----------------------------|--|--------------------------------------|-----------|
| June –<br>December<br>2022 | <u>Specific</u>  |                                      |           |
|                            | (1) Review PC and consultants final reports.                             | Lead Project Supervisor              | 3 weeks   |
|                            | (2) Conduct Exit Workshop and complete PCR.                              | Legal Counsel                        | 1 week    |
|                            | <u>General</u>   |                                      |           |
|                            | (1) Monitor reporting on infrastructure during Defects Liability Period. | Financial Analyst                    | 2 weeks   |
|                            | (2) Review and certification of requests for disbursement.               | Environmental Specialist             | 1 week    |
|                            | (3) Review of Technical Assistance reports.                              | Social Specialist (including Gender) | 1.5 weeks |
|                            |  | Administrative Assistant             | 1 week    |
|                            |  | Divisional Secretary                 | 0.5 week  |

**APPENDIX 6.7      REPORTING REQUIREMENTS**

**APPENDIX 6.7.1**

**REPORTING REQUIREMENTS**

| <b>Reports</b>   | <b>Frequency</b> | <b>Deadline for Submission</b>  |
|--|------------------|---|
| <b><u>Implementation:</u></b>  |                  |   |
| 1. Progress Report Spreadsheet on project implementation prepared by PE submitted by PC.   | Fortnightly      | Within two days after the end of each fortnight until project implementation is completed, commencing one fortnight after the start date as defined by MTW.   |
| 2. Progress Reports on project implementation prepared by Engineering Services Consultants.  | Monthly          | Within one month after the end of each calendar month until project implementation is completed, commencing one month after the start date as defined by MTW. |
| 3. Report on Baselines for the Monitoring Indicators prepared by PC.   | -                | Within three months of engagement of PC.  |
| 4. Reports on the Investment Costs of the Project prepared by PC. (Sample Guidelines presented in attached Annex)                    | Quarterly        | Two weeks after the end of each quarter until project implementation is completed, commencing with the quarter following the appointment of PC.               |
| 5. Report on the progress of the TA consultancies prepared by the PC.  | -                | As specified in each TOR.   |
| 6. Project Implementation Completion Report prepared by PC.  | -                | Within three months of completion of practical completion of the Project.   |
| <b><u>Operation:</u></b>   |                  |   |
| 7. Reports on Monitoring Indicators  | Annually         | By December 31, commencing in 2022.   |
| 8. Three-year maintenance plan for the project infrastructure, including reports of condition assessments of project infrastructure. | Annually         | By December 31, commencing in 2022.   |

**QUARTERLY REPORT ON INVESTMENT COST OF PROJECT**  
**(\$'000)**

| Elements of Project                              | Expenditure for this Quarter | Cumulative Expenditure to date | Projected Expenditure for the Quarter |                  |                  | Estimated Expenditure to Complete Project | Latest Estimate of Expenditure | Project Estimate as per Appraisal Report | Variance Favourable/ (Adverse) | Comments/ Reasons for Adverse Variance and Financing Proposal to Meet Cost Overrun |
|--|------------------------------|--------------------------------|---------------------------------------|------------------|------------------|---|--------------------------------|--|--------------------------------|--|
|  |                              |                                | Ending                                | Ending           | Ending           |   |                                |  |                                |  |
| (1)  | (2)                          | (3)                            | (4) <sub>1</sub>                      | (4) <sub>2</sub> | (4) <sub>3</sub> | (5)                                       | (6)                            | (7)                                      | (8)                            | (9)  |
| 1. Project Preparation Assistance                |                              |                                |                                       |                  |                  |   |                                | 700                                      |                                |  |
| 2. Infrastructure Works                          |                              |                                |                                       |                  |                  |   |                                | 9,295                                    |                                |  |
| 5. Engineering and Construction-related Services |                              |                                |                                       |                  |                  |   |                                | 1,247                                    |                                |  |
| 6. Project Management                            |                              |                                |                                       |                  |                  |   |                                | 1,503                                    |                                |  |
| <b>Base Cost</b>                                 |                              |                                |                                       |                  |                  |   |                                | <b>12,738</b>                            |                                |  |
| 7. Physical Contingencies                        |                              |                                |                                       |                  |                  |   |                                | 2,155                                    |                                |  |
| 8. Price Contingencies                           |                              |                                |                                       |                  |                  |   |                                | 807                                      |                                |  |
| 9. IDC & Commitment Charge                       |                              |                                |                                       |                  |                  |   |                                | 672                                      |                                |  |
| <b>Total Project Cost</b>                        |                              |                                |                                       |                  |                  |   |                                | <b>16,372</b>                            |                                |  |
| <b>Financing:</b>                                |                              |                                |                                       |                  |                  |   |                                |  |                                |  |
| <b>CDB: OCR - SFR</b>                            |                              |                                |                                       |                  |                  |   |                                | <b>13,467</b>                            |                                |  |
| <b>GOSVG</b>                                     |                              |                                |                                       |                  |                  |   |                                | <b>2,913</b>                             |                                |  |

**ANNEX TO APPENDIX 6.7.1**

**GUIDELINES FOR COMPLETION OF  
REPORT ON PROGRESS OF INVESTMENT COST**

1. Elements of Project - The elements of the Project as outlined in the Appraisal Report must be recorded in this column. If it becomes necessary to further sub-divide the main elements of the project, then the sub-elements should be grouped to facilitate the determination of the expenditure related to the main elements identified in the Appraisal Report.
2. Expenditure for this Quarter - The expenditure incurred in the quarter to which the report relates in respect of each element of the project must be recorded in this column.
3. Cumulative Expenditure to Date - The expenditure incurred in respect of each element of the project from the commencement of the project to the end of the quarter to which the report relates must be recorded in this column.
4. Projected Expenditure for Quarter - An estimate of the expenditure to be incurred in each of the next three quarters must be recorded in the columns 4<sub>1</sub>, 4<sub>2</sub>, and 4<sub>3</sub>.
5. Estimate of Expenditure to complete Project - This column should be completed only in respect of those elements of the project, construction/installation of which stretches beyond three quarters from the end of the quarter to which the report relates. Where a project extends over more than one year - four quarters - an estimate of the expenditure to be incurred in the period subsequent to the year must be recorded in this column.
6. Latest Estimate of Expenditure - The amounts to be recorded in this column should be derived by adding columns 3, 4<sub>123</sub>, and 5. The amounts recorded in this column should be the best estimate of expenditure to be incurred in respect of each element of the project. These amounts may be less or greater than the appraised expenditure.
7. Project Estimates as per Appraisal Report - The estimate of expenditure to be incurred in respect of each element of the project, as outlined in the Appraisal Report, must be recorded in this column.
8. Variance - The difference between columns 6 and 7 must be recorded in this column. Where the amount in column 6 is less than that in column 7, a favourable variance results. An adverse variance results where the amount in column 6 is greater than that in column 7.
9. Comments - An explanation should be given for each variance which is more than 10% of the project estimates as per Appraisal Report.



**APPENDIX 6.8**      **CHAPTER 6 - ADDITIONAL APPENDICES**

**APPENDIX 6.8.1**

**TERMS AND CONDITIONS FOR THE OPERATION OF THE DESIGNATED ACCOUNT**

1. After CDB has received evidence satisfactory to it that the DA has been duly opened by GOSVG at a commercial financial institution acceptable to CDB, GOSVG shall make a request to CDB for an amount not exceeding six months Eligible Expenditures (defined in paragraph 3 below) to be withdrawn from the Loan Account and deposited into the DA. On the basis of such request or requests, CDB shall, on behalf of GOSVG, withdraw from the Loan Account and deposit in the DA such amount or amounts as GOSVG shall have requested.
2. GOSVG shall furnish to CDB, at regular intervals, requests for subsequent withdrawals from the Loan Account to be deposited into the DA to replenish that account. Prior to, or at the time of each such request, GOSVG shall furnish to CDB the documents and other evidence required by CDB for the payment or payments in respect of which replenishment is requested. On the basis of each such request, CDB shall, on behalf of GOSVG, withdraw from the Loan Account and deposit into the DA such amount as GOSVG shall have requested and as shall have been shown by said documents and other evidence to have been paid out of the DA for Eligible Expenditures.
3. Payments out of the DA shall be made exclusively for expenditures in respect of the reasonable cost of goods, works and services required for the components of the Project allocated for financing by CDB as shown in the Financing Plan for the Project up to the respective limits specified therein (“Eligible Expenditures”).
4. For each payment made by GOSVG out of the DA, GOSVG shall, at such time as CDB shall reasonably request, furnish to CDB such documents and other evidence showing that such payment was made to meet expenditures in connection with the project as they were actually incurred.
5. Notwithstanding the provisions of paragraph 2 hereof, CDB shall not be required to make further deposits into the DA:
  - (a) if, at any time, CDB shall have determined that all further withdrawals should be made by GOSVG directly from the Loan Account in accordance with the provisions of the Loan Agreement;
  - (b) if GOSVG shall have failed to furnish to CDB, within the period of time to be specified in the Loan Agreement any of the audit or other reports required to be furnished to CDB pursuant to the said Loan Agreement in respect of the monitoring and audit of the records and accounts for the DA; or
  - (c) if, at any time, CDB shall have notified GOSVG of its intention to suspend in whole or in part the right of GOSVG to make withdrawals from the Loan Account pursuant to the provisions of the Loan Agreement; and

- (d) if the total unwithdrawn amount of the Loan allocated to the Eligible Expenditures, less the amount of any outstanding special commitment entered into by CDB pursuant to the Loan Agreement with respect to the Project, is 10% of the Loan amount.

6. Within the period of six months prior to the terminal disbursement date of the Loan, withdrawals from the Loan Account of the remaining unwithdrawn amount of the Loan allocated to the Eligible Expenditures shall follow such procedures as CDB shall specify by notice to GOSVG. Such further withdrawals shall be made only after and to the extent that CDB shall have been satisfied that all such amounts remaining on deposit in the DA as of the date of such notice will be utilized in making payments for Eligible Expenditures.

- (a) If CDB shall have determined at any time that any payment out of the DA:
  - (i) was made for an expenditure or in an amount not eligible pursuant to paragraph 3 hereof; or
  - (ii) was not justified by the evidence furnished to CDB,
- (b) GOSVG shall, promptly upon notice from CDB:
  - (iii) provide such additional evidence as CDB may request; or
  - (iv) deposit into the DA (or, if CDB shall so request, refund to CDB) an amount equal to the amount of such payment or the portion thereof not so eligible or justified.
- (c) Unless CDB shall otherwise agree, no further deposit by CDB into the DA shall be made until GOSVG has provided such evidence or made such deposit or refund as the case may be:
  - (v) If CDB shall have determined at any time that any amount outstanding in the DA will not be required to cover further payments for Eligible Expenditures, GOSVG shall, promptly upon notice from CDB, refund to CDB such outstanding amount.
  - (vi) If the DA is inactive for a period of six months, CDB shall notify GOSVG that it will request a refund of the outstanding balance unless, within 90 days GOSVG submits evidence satisfactory to CDB of Eligible Expenditure financed through the DA.
  - (vii) GOSVG may, upon notice to CDB, refund to CDB all or any portion of the funds on deposit in the DA.
  - (viii) Refunds to CDB made pursuant to sub-paragraphs 6 (b), (c) or (d) hereof shall be credited to the Loan Account for subsequent withdrawal or for cancellation in accordance with the relevant provisions of the Loan Agreement.

7. Once CDB has received satisfactory documentation from GOSVG for all amounts advanced to the DA, GOSVG shall furnish a bank statement to CDB showing that the account balance has been reduced to zero and the DA shall be closed.

## **APPENDIX 6.8.2**

### **DRAFT TERMS OF REFERENCE** **MONITORING AND EVALUATION CONSULTANCY**

#### **1. BACKGROUND**

1.1 The Government of St. Vincent and the Grenadines (GOSVG) has approached the Caribbean Development Bank (CDB) for proactive assistance for Sandy Bay Sea Defences Resilience Project to improve GOSVG's national disaster management.

1.2 The Project scope includes, among other things:

(a) Infrastructure Works:

- (i) Three segments of construction of armour stone revetment (boulder size 1.1 - 1.37m dia.) measuring 730 m in total length, to act as coastline protection.
- (ii) Backfilling of area in front of the newly constructed revetment, to act as a buffer zone between the existing infrastructure and the sea.
- (iii) Construction of a 350 m long reinforced concrete retaining wall, measuring 2.5 - 4.0 m in height.
- (iv) Construction of a 250 m long rubble masonry retaining wall measuring 3.0 - 5.0 m in height.
- (v) Other construction activities includes approximately 100m of paved walkways and 900 m<sup>2</sup> of landscaping.

#### **2. OBJECTIVES**

2.1 With the aim of ensuring high-quality monitoring and evaluation (M&E) of results for the Sandy Bay Sea Defences Resilience Project, and developing internal M&E capacity of the Ministry of Transport, Works, Urban Development and Local Government (MTW), the specific objectives of the consultancy are to:

- (a) build a comprehensive results-based M&E system for the Sandy Bay Sea Defences Resilience Project. The M&E system will be used for monitoring the use of project inputs; the effectiveness of the project implementation process; the production of project outputs; the achievement of project outcomes; contribution to desired impacts; and the extent to which the project impacts can be attributed to the Project; and
- (b) support the sustained use of evidence-based M&E systems within MTW.

2.2 In this process, therefore:

- (a) accord a high priority to ensuring the complementarity and alignment of the M&E system with any other relevant in-country M&E systems/practices, its sustainable operation, and

its transferability for use with other similar projects undertaken by MTW;

- (b) enhance the human resource capacity of the project management team and MTW staff on results-based monitoring, including improving MTW policy makers and planning officers' understanding of and support for M&E;
- (c) ensure the M&E system is agreed upon by key stakeholders; and
- (d) assist GOSVG in establishing arrangements within MTW for implementation of the M&E system for the Sandy Bay Sea Defences Resilience Project, and other future initiatives.

### **3. SCOPE OF CONSULTANCY SERVICES**

3.1 The Consultant(s) will carry out all the technical and other studies, research, analysis and related work to attain the objectives outlined above. The Consultant(s) will be expected to, among other things:

- (a) Review the objectives of the Sandy Bay Sea Defences Resilience Project and the draft M&E framework in the project appraisal report prepared by CDB.
- (b) Identify the range and quality of data and information required for appropriate and economic project M&E.
- (c) Determine the existence and availability of relevant M&E systems (processes, tools, templates, terminology, etc.) already in use in country (e.g. by the Ministry of Planning, for reporting to other major development partners, etc.) and consider their transferability/adaptability for this project to avoid "re-inventing the wheel" and to support harmonisation and country ownership.
- (d) Assess the institutional capacity of MTW as it relates to management information systems to support M&E, including human resources, skills and knowledge, structure, systems, data, training needs, etc.
- (e) Identify the users of the M&E information and determine the level of needs of each level of project management and the reports to be prepared and the reporting frequency.
- (f) Identify the relevant, measurable, appropriate, unambiguous indicators of project outputs and outcomes and impact. (Some of these may be proxy indicators.).
- (g) Undertake baseline surveys required to measure the outputs, outcomes and impacts.
- (h) Recommend the human resources, materials, equipment and methodologies that should be employed in operating the M&E system.
- (i) Develop and conduct formal training activities in M&E for the project management team assigned to the Project, as well as the technical staff of MTW, to the extent necessary to ensure their capacity to independently undertake all required M&E activities in the design, implementation and evaluation of future road project of various levels of complexity.
- (j) Prepare and populate suitable electronic templates/databases that will constitute the M&E system. The system should be simple in nature and should use standard spreadsheet software such as MS Excel.

- (k) Develop the appropriate data collection tools needed to collect information on each of the selected indicators.
- (l) Present the system to stakeholders in a sensitisation seminar, demonstrating the identification, collection, analysis and reporting of data and information.

3.2 In the conduct of this work, the Consultant(s) shall cooperate fully with the GOSVG agencies responsible for the development and implementation of the project and the operation of the M&E system, in particular, MTW. Participatory methodologies will be utilised in data gathering and action planning. The Consultant(s) will be required to present the findings to stakeholders in a consultation meeting, before completing the Final Report and implementing the agreed system in manual format. While MTW will provide counterpart service, the Consultant(s) will be required to liaise closely with other key stakeholders across several GOSVG agencies.

#### **4. CONSULTANT REQUIREMENTS**

4.1 The Consultant(s) should have specialist training and suitable qualifications and experience in M&E, outcome evaluation, social analysis, transportation and social and economic development.

#### **5. DELIVERABLES AND SCHEDULES**

5.1 The Consultant(s) will present four copies of each report, three copies to MTW and one copy to CDB. Electronic copies of the reports shall also be submitted in PDF as complete documents, as well as in Microsoft Word and Excel and/or other standard formats used in their creation. A copy of all data used in the preparation of the reports shall also be submitted to MTW and CDB. The Consultant(s) shall commence field work within 15 days of the effective date of the contract and shall submit the following reports to GOSVG and CDB within the time periods indicated:

- (a) An Inception Report, within three weeks after commencement of field work providing details of: (i) the in-country M&E context as it relates to pre-existing policies systems and practices and the how these will be considered in the context of this project; (ii) the project methodology; and (iii) the project schedule. GOSVG and CDB will provide comments on this report (within about two weeks) and the Consultant(s) will adjust the report accordingly.
- (b) A brief Progress Report (four pages maximum of main text), detailing the proposed training plan and progress in respect of development of the M&E system, including collection of baseline data, two months after commencement of field work.
- (c) Draft Operational Guide for the M&E system, within four months of commencement of field work. The Operational Guide should: detail the components and tools of the M&E system (i.e. performance/results monitoring framework, reporting templates, data collection instruments, etc.); detail the resources required to implement the system; and provide clear instructions on how to implement the system and use data collection tools, as well as how to analyse and report the data and information. Along with the Operational Guide (Microsoft Word), the Consultant(s) will provide a copy of the main documents of the M&E system (templates, data collection instruments, etc.) (MSWord/Excel). The Operational Guide should be user-friendly and suited to the MTW/GOSVG context. GOSVG and CDB will provide comments on this deliverable within about three weeks of receipt) and the Consultant(s) will adjust the Operational Guide according to the

comments received.

- (d) Final Operational Guide for the M&E system within four weeks of receipt of comments for GOSVG and CDB's acceptance.

## **6. HUMAN RESOURCES SCHEDULING AND COSTS**

6.1 The Consultant(s) is to support the proposal submission with the provision of the following information:

- (a) the methodology to be used in the assignment;
- (b) the name(s), experience and qualifications of staff who will be assigned to this project;
- (c) a Gantt chart showing the input for the assignment indicating the overall length of time required for each stage of each package and the man-weeks required; and
- (d) full submission of costs with detailed breakdown which should include:
  - (i) professional fees;
  - (ii) support staff services;
  - (iii) equipment;
  - (iv) communication costs;
  - (v) report production costs; and
  - (vi) travel expenses and per diem requirements (if applicable).

## **7. SUPERVISION OF THE CONSULTANT**

7.1 The Consultant(s) will report to the Project Coordinator assigned by MTW, who will be responsible for routine supervision of the Consultant(s) and monitoring the progress of this consultancy.

## **8. DURATION**

8.1 The assignment should be completed over a period of 12 months.

### **BUDGET** **(USD)**

| <b>Item</b>  | <b>CDB</b>    | <b>GOSVG</b>  | <b>Total</b>  |
|--|---------------|---------------|---------------|
| <b>A. Consultancy Services:</b>  |               |               |               |
| Professional Fees  | 30,000        | 10,000        | 40,000        |
| <b>B. General Support:</b>   |               |               |               |
| Project Documents, Office Accommodation, Local Transport and Communication, Local Counterpart Staff, Public Consultations and Training | 5,000         | 20,000        | 25,000        |
| <b>Total</b>   | <b>35,000</b> | <b>30,000</b> | <b>65,000</b> |