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Report No: PAD2893

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF US\$25 MILLION

TO

SINT MAARTEN

FOR A

SINT MAARTEN EMERGENCY DEBRIS MANAGEMENT PROJECT

December 18, 2018

Social, Urban, Rural and Resilience Global Practice
Latin America and Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective May 1, 2018)

Currency Unit = Netherlands Antillean Guilder (NAF)

NAF1.80 = US\$1

FISCAL YEAR

January 1–December 31

ABBREVIATIONS AND ACRONYMS

GDP	Gross Domestic Product
ESIA	Environmental and Social Impact Assessment
ESMP	Environment and Social Management Plan
FM	Financial Management
GRM	Grievance Redress Mechanism
GCLS	Grievance Complaints Logging System
GRS	Grievance Redress Service
HEIS	Hands-on-Expanded Implementation Support
ICR	Implementation Completion and Results Report
IRC	Interim Recovery Committee
IFR	Interim Financial Report
IPF	Investment Project Financing
M&E	Monitoring and Evaluation
NRPB	National Recovery Program Bureau
NRRP	National Recovery and Resilience Plan
PDO	Project Development Objective
PPSD	Project Procurement Strategy for Development
POM	Project Operations Manual
RAP	Resettlement Action Plan
SAP	Safeguards Action Plan
SORT	Systematic Operations Risk-Rating Tool
SDTF	Single-Donor Trust Fund
STEP	Systematic Tracking and Exchanges in Procurement
ToR	Terms of Reference
TA	Technical Assistance
TF	Trust Fund
TEATT	Ministry of Tourism, Economic Affairs, Transport and Telecommunication
TTL	Task Team Leader
VRMI	Ministry of Public Housing, Spatial Planning, Environment and Infrastructure
VSA	Ministry of Public Health, Social Development, and Labor

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name		
St Maarten	Sint Maarten Emergency Debris Management Project		
Project ID	Financing Instrument	Environmental Assessment Category	Process
P167347	Investment Project Financing	A-Full Assessment	Urgent Need or Capacity Constraints (FCC)

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input checked="" type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input checked="" type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
21-Dec-2018	30-Sep-2022

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To manage debris from the hurricane and reconstruction activities to facilitate recovery and reduce risks.

**Components**

Component Name	Cost (US\$, millions)
Debris Clearance and Management	22.00
Technical Assistance	2.50
Project Management and Implementation Support	0.50

Organizations

Borrower:	Government of Sint Maarten
Implementing Agency:	Ministry of General Affairs National Recovery Program Bureau

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

Total Project Cost	25.00
Total Financing	25.00
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS**Non-World Bank Group Financing**

Trust Funds	25.00
Free-standing Single Purpose Trust Fund	25.00

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2019	2020	2021	2022	2023
Annual	1.50	7.50	9.00	6.00	1.00
Cumulative	1.50	9.00	18.00	24.00	25.00



INSTITUTIONAL DATA

Practice Area (Lead)

Social, Urban, Rural and Resilience Global Practice

Contributing Practice Areas

Environment & Natural Resources, Social Protection & Labor

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	No
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	No
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	No

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● High
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Substantial
5. Institutional Capacity for Implementation and Sustainability	● High
6. Fiduciary	● High
7. Environment and Social	● High
8. Stakeholders	● Moderate
9. Other	
10. Overall	● High



COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36		✓
Pest Management OP 4.09	✓	
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50	✓	
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

Schedule 2, Section I.A.1. The Recipient shall, as relevant, maintain throughout Project implementation, with composition, resources, terms of reference and functions acceptable to the World Bank, the IRC and, subsequently, the NRPB to be responsible for: (a) the implementation of the Recipient’s National Recovery and Resilience Plan and specifically to manage the program of projects financed by the Trust Fund; and (b) (i) the management, coordination and implementation of the Project; (ii) the assurance of the proper application in the Project of the requirements, criteria, policies, procedures and organizational arrangements set forth in the Grant Agreement, the Project Operations Manual (“POM”), and the Safeguard Instruments; and (iii) coordination with the following agencies in preparation and implementation of the technical aspects of the respective activities: (A) VROMI, in its provision of technical oversight over the Project; (B) Ministry of Public Health, Social Development and Labor (VSA), in providing technical oversight on coordinating with VROMI, IRC and NRPB on the air quality monitoring



requirements under the Safeguards Instruments in connection with the fire suppression related Project activities, and on the vector control elements of the Project; and (C) Ministry of Tourism, Economic Affairs, Traffic and Telecommunication (TEATT), the Foundation for the Management and Conservation of Nature on Sint Maarten (“Nature Foundation of Sint Maarten”), and the Simpson Bay Lagoon Authority in connection with the ship salvaging related Project activities.

Sections and Description

Schedule 2, Section I.A.2. By no later than sixty (60) days following the Effective Date, in furtherance of Section I.A.1 (b) of Schedule 2 to the Grant Agreement, the Recipient shall hire a Project manager, satisfactory to the World Bank, to manage, coordinate and oversee the overall implementation of the Project.

Sections and Description

Schedule 2, Section I.B.1. By no later than sixty (60) days following the Effective Date, the Recipient shall have finalized the POM, in substance and form, and in a manner acceptable to the World Bank.

Sections and Description

Schedule 2, Section I.C. The Recipient shall prepare and furnish to the World Bank not later than April 1st of each year during the implementation of the Project, a proposed Annual Work Plan and Budget, and afford the World Bank a reasonable opportunity to exchange views with the Recipient on each such proposed Annual Work Plan and Budget, and shall thereafter ensure that the Project is implemented with due diligence during said following year, in accordance with such Annual Work Plan and Budget as shall have been approved by the World Bank.

Sections and Description

Schedule 2, Section I.D.1. Before requesting the World Bank’s prior review and no objection to begin the bidding process for the procurement of the contracts for the carrying out of the respective Project activities set forth below, the Recipient shall, all in form and substance acceptable to the World Bank:

- (a) for Component 1 (a) of the Project, carry out proper public consultations on, finalize, adopt, publicly disclose, and incorporate into the POM, a finalized Environmental and Social Management Plan (“ESMP”);
- (b) for Component 1 (b) (ii) of the Project, furnish to the World Bank terms of reference for the respective Environmental and Social Impact Assessment (“ESIA”) and ESMP;
- (c) for Component 1 (b) (iii), Component 1 (b) (iv), Component 1 (b) (v), and Component 1 (b) (vi) of the Project, carry out proper public consultations on, adopt, publicly disclose, and incorporate into the POM, a finalized ESIA, ESMP, and, as relevant, Resettlement Action Plan (“RAP”);
- (d) for Component 1 (c) (i) of the Project, carry out proper public consultations on, adopt, publicly disclose, and incorporate into the POM, a final ESMP, and, as relevant, RAP;
- (e) for Component 1 (c) (ii) of the Project, carry out proper public consultations on, adopt, publicly disclose, and incorporate into the POM, a final ESMP;
- (f) for Component 1 (d) of the Project, carry out proper public consultations on, adopt, publicly disclose, and incorporate into the POM, a final ESMP; and
- (g) for Component 1 (e) of the Project, carry out proper public consultations on, adopt, publicly disclose, and incorporate into the POM, a final ESMP and Pest Management Plan.

Sections and Description

Schedule 2, Section I.D.2. Before requesting the World Bank’s no objection to commence the activities under



Component 1 (b) of the Project, the Recipient shall, after proper public consultation, adopt, publicly disclose, and incorporate into the POM, all in form and substance acceptable the World Bank, for Component 1 (b) (ii) of the Project, the respective final ESIA, ESMP, and RAP.

Sections and Description

Schedule 2, Section I.D.3 (a). With respect to the ESIA and ESMP under Component 1 (b) (ii) of the Project, the Recipient shall: (i) by no later than thirty (30) days following the Effective Date, prepare draft terms of reference for said ESIA and ESMP, and submit the said draft terms of reference to the World Bank for review and approval; (ii) by no later than one hundred and twenty (120) days following the date of the World Bank's issuance of a no-objection to said draft terms of reference, prepare and publicly disclose the draft ESIA and draft ESMP; (iii) by no later than thirty (30) days following the date of public disclosure of the draft ESIA and draft ESMP, carry out and complete public consultations on the draft ESIA and draft ESMP; (iv) by no later than two hundred and forty (240) days following the Effective Date finalize the ESIA and ESMP, incorporating comments resulting from the public disclosure and consultations, and publicly disclose the final ESIA and ESMP.

Sections and Description

Schedule 2, Section I.D.3 (b). With respect to the ESIA and ESMP under Component 1 (b) (iii) of the Project, the Recipient shall: (i) by no later than ninety (90) days following the Effective Date, prepare draft terms of reference for such ESIA and ESMP, and submit said draft terms of reference to the World Bank for review and approval; (ii) by no later than one hundred and twenty (120) days following the date of the World Bank's issuance of a no-objection to the said draft terms of reference, prepare and publicly disclose the draft ESIA and draft ESMP; (iii) by no later than thirty (30) days following the date of public disclosure of the said draft ESIA and draft ESMP, carry out and complete public consultations on the draft ESIA and draft ESMP; (iv) by no later than two hundred and forty (240) days following the Effective Date finalize the ESIA and ESMP, incorporating comments resulting from the public disclosure and consultations, and publicly disclose the final ESIA and ESMP.

Sections and Description

Schedule 2, Section I.D.3 (c). With respect to ESMPs under the Project, other than the ESMPs under Component 1 (b) (ii) and Component 1 (b) (iii) of the Project, the Recipient shall: (i) by no later than sixty (60) days following the Effective Date, prepare and publicly disclose the draft ESMPs; (ii) by no later than thirty (30) days following the public disclosure of the said draft ESMPs, carry out and finalize public consultations on the draft ESMPs; (iii) by no later than two hundred and forty (240) days following the Effective Date, finalize the said ESMPs, incorporating comments resulting from the public disclosure and consultations, and publicly disclose the final ESMPs.

Sections and Description

Schedule 2, Section I.D.3 (d). With respect to the RAP for Component 1 (b) (ii) of the Project, the Recipient shall: (i) by no later than one hundred and twenty (120) days following the Effective Date, prepare (including carrying out the related public consultations) and submit a draft RAP to the World Bank for review and approval; and (ii) by no later than five (5) days following the date of the World Bank's issuance of a no-objection to the draft RAP, finalize and publicly disclose the final RAP.

Sections and Description

Schedule 2, Section I.D.3 (e). For all other RAP(s) under the Project (other than the RAP for Component 1 (b) (ii) of the Project), the Recipient shall prepare the RAP(s) as needed.



Sections and Description

Schedule 2, Section I.D.3 (f). With respect to the establishment of a Project complaint and grievance redress mechanism, the Recipient shall, by no later than thirty (30) days following the Effective Date, establish, and thereafter maintain and publicize throughout Project implementation, a Project feedback and grievance redress mechanism, satisfactory to the World Bank, to hear and determine fairly and in good faith all feedback and complaints raised in relation to the Project, and shall take all measures necessary to implement the determinations made by said feedback and grievance redress mechanism, in a manner satisfactory to the World Bank.

Sections and Description

Schedule 2, Section I.D.4. The Recipient shall: (a) take all necessary actions to minimize, to the extent possible, any Involuntary Resettlement, in carrying out the Project; and (b) for this purpose, whenever implementation of Project activities would give rise to Displaced Persons with respect to said activities: (i) prepare, disclose and publicly consult on, and cause to be prepared, disclosed and publicly consulted on, a RAP or RAPs for sites where pre-screening has identified resettlement impacts; (ii) thereafter, provide said RAP(s) to the World Bank for review and approval; and (iii) commence and implement such works in accordance with the RAP(s), as have been accepted by the World Bank as being satisfactory, including, in the case of any Involuntary Resettlement, to commence the related Project activities only after the respective Displaced Persons have been compensated in accordance with the relevant RAP(s).

Sections and Description

Schedule 2, Section I.D.5. The Recipient shall commence and implement the Project activities in accordance with, as relevant, the respective Safeguard Instruments, as shall have been accepted by the World Bank as being satisfactory.

Sections and Description

Schedule 2, Section I.D.6. The Recipient shall ensure that: (a) the Project activities shall begin only after the requisite Safeguard Instruments have been prepared, properly consulted on, adopted and publicly disclosed; and (b) the Project is carried out in accordance with the provisions of the relevant Safeguard Instruments, and to this end, shall maintain throughout Project implementation, dedicated teams to ensure the Project's compliance with the Safeguard Instruments, all of which shall be acceptable to the World Bank.

Sections and Description

Schedule 2, Section I.D.9. Prior to the selection of consultants for technical advisory services, or contractors for the Project activities, the Recipient shall submit to the World Bank for its no-objection the terms of reference for such services, incorporating the requirements of the World Bank's Safeguard Policies then in force.

Sections and Description

Schedule 2, Section I.D.10. The Recipient shall ensure that: (a) any technical advice conveyed through technical assistance financed under this Agreement complies with the requirement of the relevant Safeguard Policies; (b) all contractors carrying out the Project perform their work in accordance with the technical and environmental practices applicable to the Project, under terms of reference and with qualifications and experience necessary to satisfactorily carry out the design and construction of the Project; and (c) any contracts for civil works under the Project include Codes of Conduct, for local and international contractors, their staff, guest workers, laborers, in form and substance acceptable to the World Bank.



Sections and Description

Schedule 2, Section I.D.11. The Recipient shall: (a) as soon as reasonably practicable, but no later than five (5) calendar days after the occurrence of a Significant Event (as defined in the Grant Agreement), inform the World Bank by any electronic means of the nature of the incident, accident, or circumstance and any effect or impact (whether on-site or off-site) resulting or likely to result therefrom; (b) as soon as reasonably practicable, but no later than thirty (30) calendar days after such Significant Event, provide the World Bank with a summary report that includes a description of such Significant Event, and the measures, if any, that the Recipient is taking or plans to take to address such Significant Event and to prevent any future similar event; and (c) keep the World Bank informed of the on-going implementation of the said measures and plans.

Sections and Description

Schedule 2, Section I.F. In carrying out Component 1 (b) of the Project, the Recipient’s decision on whether to rehabilitate, restore or close the said temporary storage site shall be subject to assessments of the relevant technical review(s) carried out under the Project and in consultation with the World Bank.

Sections and Description

Schedule 2, Section III.A. Not later than fourteen (14) days after the date of the Effective Date, the Recipient shall finalize and publicly disclose an initial procurement plan for the Project, which shall be in form and substance satisfactory to the World Bank.

Conditions

Type	Description
Effectiveness	Provision of an opinion satisfactory to the World Bank, of counsel acceptable to the World Bank, showing that (a) the Minister of General Affairs has been authorized and, thus, has the legal capacity to carry out the Project, through the Interim Recovery Committee, on behalf of the Recipient in accordance with this Agreement, (b) the execution and delivery of this Agreement on behalf of the Recipient have been duly authorized or ratified by all necessary governmental action, and (c) this Agreement is legally binding upon the Recipient in accordance with its terms.



I. STRATEGIC CONTEXT

A. Country Context

1. Sint Maarten is a high-income constituent country of the Kingdom of the Netherlands in the Caribbean. It occupies the southern half of an island shared with the French overseas Collectivity of Saint Martin. It is the most densely populated country in the Caribbean with a population of about 40,000 and a per capita gross domestic product (GDP) of US\$25,381. Sint Maarten is currently rebuilding after damages caused by Hurricane Irma that claimed lives and deteriorated the socioeconomic environment on the island.

2. Sint Maarten is highly vulnerable to natural disasters and adverse climatic events due to its location within the Caribbean hurricane belt. For the past decades, Sint Maarten has been exposed to numerous high winds and hurricanes, including notably intense storms: Donna in 1960 (Category 3), Luis in 1995 (Category 4), and Irma in 2017 (Category 5 plus). Due to the size of the country, a single storm has the potential to directly affect the entire population. High winds, excessive rainfall, and flooding are the principal risk factors, while Sint Maarten is also vulnerable to earthquakes. Coastal areas are exposed to flood risk from storm surges and tsunamis. Increased urbanization along with climate change and limited country capacity to build with resilience, add to the country's vulnerability to natural hazards.

3. Natural hazards have catastrophic impacts on Sint Maarten's economy which is essentially tourism based. The restaurants, hotels, and other tourism-related sectors (including the wholesale and retail trade, and the real estate, renting, and business sectors), account for approximately 45 percent of Sint Maarten's GDP. Activities in the transport, storage, and communication sectors, which account for 11 percent of GDP, are also related to the tourism sector. The tourism sector contributed 73 percent to Sint Maarten's total foreign exchange income in 2016. Sint Maarten's harbor is a significant port for cruise tourism in the Caribbean, with 1.7 million cruise passengers visiting each year. The airport is an important hub for regional travel, with a large network of connecting flights across the Caribbean. However, the economy has seen limited growth in recent years and remains exposed to tourism trends and weather shocks.

Urgent Need of Assistance

4. Sint Maarten is in need of urgent assistance after Hurricane Irma, a Category 5 plus hurricane, hit the island on September 6, 2017. Winds of more than 185 m per h (296 km per hour) left a trail of devastation throughout the country. The storm's eye passed directly through Sint Maarten, exposing it to the highest wind velocities in the storm. Irma was followed on September 19 by tropical storm conditions from Hurricane Maria, and further damaged Sint Maarten's infrastructure. The World Bank estimates damages and losses related to Hurricane Irma and Hurricane Maria at US\$1.38 billion (129.5 percent of GDP) and US\$976.5 million (91.8 percent of GDP) respectively and affected 90 percent of all infrastructure and large parts of the natural environment.

5. Reconstruction and recovery needs are greater than currently identified public and private resources. Sint Maarten's economy is expected to contract 8.5 percent in 2018, following an estimated 4.5 percent contraction in 2017. Growth is projected to rebound in 2019 and the country is expected to



return to its pre-Hurricane Irma real GDP level by 2025. Private external finance from direct investment, loans, pay-out of insurance claims, and funds held abroad will be needed to finance reconstruction of private properties and businesses. Public finances face a sharp decline in tax revenue due to the economic contraction and, at the same time, increased expenditure needs to reconstruct public infrastructure and to assist the affected population.

6. Sint Maarten's overall unemployment rate (6.2 percent) and youth unemployment rate (23.8 percent) in 2017 have risen significantly following the hurricane due to the shutting down of tourism businesses. The tourism sector suffered from significant damages to the airport, accommodations, and tour operator equipment, dramatically reducing the number of tourist arrivals. Micro, small, and medium enterprises have experienced significant loss of capital due to the impacts of the hurricane. Households need access to finance to rebuild homes and fully reengage in economic activities. Rapid economic recovery and reconstruction are critically needed to generate revenues and avoid further job losses, while support is needed to stimulate access to finance and business recovery and to enable the private sector to grow and contribute to Sint Maarten's overall economic recovery.

7. Sint Maarten has made substantial efforts to address the most urgent needs following Hurricane Irma (for example, initial debris clearance, sheltering roofless populations, and resumption of government and business services). Nevertheless, recovery needs are massive, and the country has limited capacity to manage this scale of resilient reconstruction. On April 16, 2018, the Government of Netherlands established a €470 million Single-Donor Trust Fund (SDTF), managed by the World Bank, to support rapid and sustainable recovery, this SDTF will finance activities selected from the Government of Sint Maarten's National Recovery and Resilience Plan (NRRP) for the recovery, reconstruction, and resilience building of Sint Maarten. The SDTF Steering Committee, composed of one representative from each of the Government of Sint Maarten, the Government of the Netherlands, and the World Bank, is mandated to approve funding for recovery projects as well as required capacity-building activities. The Steering Committee approves funding for projects by consensus and monitors the progress of agreed activities. The Steering Committee has approved funding for five priority projects: (i) the Sint Maarten Emergency Recovery Project I (P167339); (ii) the Sint Maarten Emergency Debris Management Project (P167347); (iii) the Emergency Income Support and Training Project (P167368); (iv) the Sint Maarten Hospital Resiliency and Preparedness Project (P167532); and (v) the proposed Sint Maarten Enterprise Recovery Project (P168549).

B. Sectoral and Institutional Context

8. The NRRP outlines the Government's vision, principles, and a proposed approach for rebuilding a 'better and stronger Sint Maarten'. It aims to accelerate the restoration of social and economic infrastructure based on a consensus of all stakeholders, and the 'Build-Back-Better' principle. The NRRP emphasizes the need to restore business activities as a priority, while acknowledging the need to address the significant social disruption generated by the disaster.

9. Hurricane Irma caused extensive property damage, producing debris both from the damage itself and the subsequent demolition and reconstruction activities. As of July 2018, it was estimated that 100,000 m³ debris has been cleared and collected and remains in temporary storage. An estimated 100,000 m³ remains in public spaces or is expected to be produced by the ongoing demolition and reconstruction activities. Up to 130 shipwrecks are estimated to remain in the main lagoon (Simpson Bay)



because of the hurricane. The uncleared debris is a barrier to reconstruction; contributes to negative aesthetic impacts; and provides breeding grounds for mosquitos that carry dengue, chikungunya, and zika, which poses direct health risk for the population as well as economic losses due to the negative media coverage in the tourism industry. Similarly, abandoned vessels that were damaged in the storm also pose risks to property and the environment, are a navigational hazard, and are reducing the aesthetics of important tourism areas.

10. Over the years, waste management at the municipal dumpsite has suffered from a longstanding absence of separation, recycling, and proper processing, and insufficient compacting and coverage of waste on the landfill, leading to the development of substantial risks, including a smoldering underground fire, long before the passage of Irma. This fire causes regular flareups with significant negative impacts on the living environment of the population in the island and on the economy.

11. The increased flow of debris directly caused by the hurricane and from the post-disaster demolition and reconstruction activities has made the situation worse. The pressure of additional debris has compounded these risks and led to more frequent flareups to the surface of the dumpsites, regularly impacting the neighboring areas with smoke and odors. The debris clearance thus far has been incomplete, with most of it not cleared, collected, treated, or disposed. This has further exacerbated environmental and social risks, and increased the costs for its proper management. Limited final treatment, disposal, and recycling of the debris has also resulted in accumulated debris in temporary storage and inadequate disposal, with concomitant health and environmental risks.

12. **Institutions.** Debris is managed by the Ministry of Public Housing, Spatial Planning, Environment, and Infrastructure (VROMI), which also manages solid waste collection and disposal services. VROMI collects the debris through a series of private sector contracts and is responsible for its processing and disposal on Pond Island near Phillipsburg.

13. The Pond Island includes two sites receiving debris from the hurricane and its recovery: (i) a temporary storage area designated for debris from the hurricane and its reconstruction which includes an area where metal processing is ongoing and where automobiles are stripped of metals and crushed and processed; and (ii) the municipal waste disposal site, where debris is mixed with household and commercial waste and where processing of cement and stone debris is ongoing. A preliminary assessment revealed fires below the surface of the sites, with temperatures exceeding 300°C. Risks from such subsurface fires include: (i) creation of unstable areas (crevasses and pits) that could result in the movement and collapse of the slope; and (ii) air quality degradation from the smoke from smoldering waste and the related odor emitted from the site. Suppressing the sub-surface fires is therefore an urgent priority that calls for immediate technical measures, dedicated financial resources, and the concerted efforts of the various line ministries in Sint Maarten. In addition to extinguishing the fire, other risks can be reduced through the rehabilitation and reorganization of both sites.

14. The Ministry of Public Health, Social Development, and Labor (VSA) also plays a role in debris management through the clearance of debris to reduce risks of mosquito-borne illnesses. VSA currently runs a program that uses health volunteers to educate the population about mosquito breeding grounds, including ways to prevent discarded containers and trash from becoming breeding grounds for mosquitos. As part of this process, they identify potential breeding grounds for mosquitos and share this information with VROMI, which then picks up the debris and containers from the identified areas.



15. The project responds to the urgent need to reduce the economic costs, as well as the environmental, health, and safety risks of debris and its management. This will be done by clearance and collection of debris; recovery and salvaging of vessels; and reusing, recycling, treating, and disposing of the debris in a manner that reduces risks. Reducing risks by undertaking fire suppression activities with the objective of extinguishing sub-surface fires and preventing the recurrence of similar risks in the future through better management of the landfill are key objectives of this project. To reduce risks of the current and past debris storage, processing and disposal practices, the project envisions restoring the temporary debris storage site. In addition to undertaking fire suppression, it will also reduce risks at the municipal waste disposal site over time by stabilizing the slope, upgrading and improving landfill operation, and preparing a plan for eventual closure of the site and its rehabilitation. The project will encourage citizen engagement and employment through a labor-intensive program and enhanced communications as part of the improved systems of debris management.

C. Higher Level Objectives the Project Contributes

16. The project will support the objectives of Sint Maarten’s NRRP to restore economic, community, and governance infrastructure and service delivery. It addresses the need for immediate recovery and reconstruction by suppressing the smoldering fires, reducing air pollution, improving landfill management, and sustainably reducing debris and the associated risks. Suppression of sub-surface fires and removal of debris will help restore order and attractiveness of the island, and help expedite reconstruction and reduce health, safety and environmental risks. The labor-intensive debris cleanup program will provide employment opportunities. The project will also contribute to governance (the third area of NRRP) by supporting improved planning for recovery and strengthening disaster risk management.

17. Based on the Climate and Disaster Risk Screening assessment, the project’s potential for climate change adaptation co-benefits is expected to be significant, particularly from Component 1 described in detail below, which will improve debris management systems and infrastructures. The technical assistance component (Component 2 detailed in Section III.) which will support the development of resilient infrastructure planning that responds to future climate change variations, will also generate adaptation co-benefits. In addition, fire suppression and improved landfill management will likely help reduce emissions of greenhouse gases and other climate pollutants, generating climate change mitigation co-benefits as well.

18. The project is aligned with the World Bank’s twin goals of ending extreme poverty and boosting shared prosperity. It will help the country address a critical obstacle to the environmental well-being of the population and create a better environment for tourism recovery, thereby contributing to economic and social development and sustainable and inclusive growth.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

19. The Project Development Objective (PDO) is to manage debris from the hurricane and reconstruction activities to facilitate recovery and reduce risks.



B. PDO-Level Results Indicators

20. Indicators for the proposed project include:

- Volume of debris safely cleared and processed (m³)
- Numbers of vessels safely recovered and salvaged
- Reduction of risk at municipal disposal site

C. Project Beneficiaries

21. The debris clearance and management will benefit the entire population of Sint Maarten (about 40,000 people) through reduced health risks and improved aesthetics, as well as by facilitating subsequent reconstruction. Short-term employment opportunities provided through the debris clearance activities will facilitate temporary job creation.

III. PROJECT DESCRIPTION

A. Project Components

Component 1. Debris Clearance and Management

22. Provision of goods, works, non-consulting services, consulting services, and Cash Compensation and Assistance, in support of and related to the following activities:

Sub-component 1. (a): Collection of debris. Collection of debris, including the use of procedures for separation of debris by materials for easier processing and treatment.

Sub-component 1. (b): Reducing risks of operation, fire suppression, reorganization, rehabilitation, and upgrading of debris storage and municipal disposal sites. Upgrading of debris storage and municipal waste disposal sites to improve their organization and layout and reduce risks, introduction of improved operational practices to enhance separation, improve storage, and reduce environmental and safety risks of the operation, and planning of the municipal disposal site's safe closure, through:

- (i) the purchase of equipment for debris management and protection of workers from risks present at the disposal and debris storage sites;
- (ii) the carrying out of fire suppression activities at the disposal and debris storage sites;
- (iii) the recontouring and reorganization of the layout of the disposal site to allow for better separation and recycling, and improved operations;
- (iv) provision of Operating Costs related to the management of the disposal site



under improved operational procedures;

- (v) development of a plan for the safe closure of the municipal waste disposal site; and
- (vi) subject to findings of further technical assessment and Bank's review, supporting rehabilitation, restoration, and/or closure of the temporary Irma debris storage site.

Sub-component 1. (c): Debris processing and disposal. (i) Provision of equipment and facilities to manage the debris, and of service contracts for the recycling, reuse, treatment, destruction, or disposal of debris materials and (ii) creation of an artificial reef or fishing grounds using debris.

Sub-component 1. (d): Vessel recovery and salvaging. Provision of assistance for the removal and salvaging (including breakdown, treatment, recycling, and disposal) of vessels in Simpson Bay and Simpson Bay Lagoon.

Sub-component 1. (e): Debris clearance. (i) Removal of debris from public spaces and private properties to curbside; (ii) collection of debris for vector control purposes; (iii) assessment, monitoring, and supervision of debris-related vectors; and (iv) beautification of public areas, focusing on debris removal and landscaping.

23. This component would also finance associated technical studies or technical assistance, as needed and agreed between the Bank and the borrower, corresponding supervision activities, and relevant social and environmental safeguards instruments for selected investments.

Component 2. Technical Assistance

24. Provision of technical assistance (TA), including training and workshops in relation, to the following:

- (a) **Technical design and operational support.** Development and review of designs, technical specifications, and operational supervision and advice for debris clearance and management under Component 1 of the Project.
- (b) **Emergency debris management plan.** Development and formalization of an emergency debris management plan, including: (i) a guide for debris inventory; (ii) technical specifications for debris collection, handling, and processing; (iii) pre-identification of temporary disposal and processing sites; and (iv) an approach for pre-contracting, including draft contracts.
- (c) **Legal and training support for contract management.** Provision of legal support to improve debris management and solid waste contracts and provision of training in drafting, negotiations, and management of infrastructure and operational contracts.



- (d) **Support to improve debris management and vector control services.** Provision of support for the adoption and implementation of improved debris management and debris clearance-related vector control services, rules, regulations and policies.
- (e) **Communications and citizen engagement strategy.** Implementation of a communications and citizen engagement plan for debris management, vector control, and solid waste management, including a complaints system, citizen engagement activities, education, and a public awareness campaign.
- (f) **Environmental and health monitoring.** Monitoring of environmental conditions in the context of debris collection and processing to improve safety of workers, population, and to monitor project-related indicators.

Component 3. Project Management and Implementation Support

- (a) Strengthening and development of the institutional capacity of Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (“VROMI”) in the management of the Project, in relation to solid waste management infrastructure, including monitoring and evaluation, supervision of solid waste management activities, defining specific needs for goods acquisition and/or technical assistance, coordination with, as relevant, the Interim Recovery Committee (“IRC”) and/or the National Recovery Program Bureau (“NRPB”) to ensure complementarity with the Recipient’s related programs.
- (b) Provision of support under, as relevant, the IRC and/or NRPB to oversee the project and liaise with VROMI, including with respect to procurement under the project.
- (c) Provision of operating costs for the project.

B. Project Cost and Financing

25. The initial project cost estimate and approved budget for the proposed components at the time of project preparation was US\$15 million. However, during preparation, a higher financing envelope was found to be necessary, largely to finance the suppression and extinguishing of surface and subsurface fires at the dump sites. The SDTF Steering Committee convened on July 12, 2018, to assess the request for additional funds and subsequently approved an additional US\$10 million for the project.

26. The total project cost is US\$25 million. Table 1 indicates the financing allocated by component.

Table 1: Proposed Project Cost and Financing Plan

Project Components	Project Cost (US\$, million)	Financing
Component 1: Debris Clearance and Management	22.0	Sint Maarten TF
Component 2: Technical Assistance	2.5	Sint Maarten TF
Component 3: Project Management and Implementation Support	0.5	Sint Maarten TF
Total Cost	25.0	Sint Maarten TF



IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

27. The Government is establishing the National Recovery Program Bureau (NRPB) for the implementation of this project, as well as all other recovery and resilient projects selected by the SDTF Steering Committee. The Bureau will carry out technical, administrative, legal, financial, and procurement responsibilities and will be staffed to lead project implementation. It will have overall responsibility for ensuring compliance with fiduciary agreements, procurement guidelines, social and environmental management, monitoring, reporting, and evaluation of processes and results. It will coordinate all aspects of the project with relevant ministries and conduct consultative and reporting functions.

28. Until the Bureau is in place, project implementation will be carried out by the Interim Recovery Committee (IRC), which was established by the Government to coordinate projects funded by the SDTF. IRC will serve as the primary Project Implementation Unit (PIU) for the project. The IRC/NRPB includes technical, administrative, legal, safeguards, financial, and procurement staff to handle project implementation. It acts as an overarching project implementation support unit, coordinating with and assisting all co-executing ministries/agencies, and reports directly to the Prime Minister and the Minister of General Affairs. The Bank will provide support and capacity building to the IRC and the NRPB once established.

29. VROMI and VSA will also play implementation roles. VROMI will provide technical advice on debris management. The Debris Project Manager, tasked with overseeing the Emergency Debris Management Project, will be hired in the IRC/NRPB and liaise with a solid waste manager in VROMI. The latter is responsible for providing inputs on the technical aspects of the project—for example, technical specifications, review of safeguards, preparation and review of terms of references (ToRs), supervision and other needs—to the project manager in the IRC/NRPB. The IRC/NRPB Debris Project Manager's responsibility is to report to the program manager, deliver ToRs and technical specifications to the procurement team of the IRC/NRPB, and act as a coordinator for the Project.

30. VSA will coordinate with VROMI and the IRC/NRPB on the air quality monitoring as part of the safeguards' implementation for fire suppression activities. VSA will also coordinate closely with VROMI and assist with the identification of major debris sites and locations of demolition waste that serve as breeding grounds for mosquitos, which will be targeted for cleanup through the labor-intensive program under the project. VSA will also provide guidance to VROMI on the implementation of project activities related to vector control and help monitor progress through the monitoring indicator defined in the Results Framework. VROMI will reach out to other government agencies as needed, including the Department of Civil Aviation, Shipping, and Maritime Affairs and the Ministry of Justice, and liaise with the Natures Foundation and the Simpson Bay Lagoon Authority (under the Ministry of Tourism, Economic Affairs, Transport and Telecommunication [TEATT]) for vessel recovery and salvaging activities.

B. Results Monitoring and Evaluation

31. The IRC/NRPB will be responsible for overall project M&E and regular reporting to the Bank. A results-based M&E system would monitor project implementation using the following methods and tools:



(i) the project Results Framework; (ii) an M&E strategy with information requirements, tools, and methodologies for data collection, analysis, and reporting; (iii) a comprehensive M&E plan, with guidance on roles and responsibilities with respect to data collection and reporting; and (iv) periodic assessments and evaluations, including baseline studies, beneficiary assessments, midterm evaluations, and ex post evaluation. The IRC/NRPB will be responsible for process and performance monitoring of individual activities and will consolidate, validate, and analyze all M&E data provided by other ministries.

32. The IRC/NRPB will develop the necessary monitoring information system to store the data and continuously update the indicators. Baseline studies will be conducted at the start of the project, followed by systematic data collection, analysis, and reporting to the Government and the Bank according to the agreed requirements and timelines.

C. Sustainability

33. The project will take advantage of local and international experience in hurricane recovery, and the lessons from project implementation to establish procedures and contingency measures to ensure that in the event of another disaster, Sint Maarten can readily and effectively recover, reduce the economic costs and environmental and public health risks of debris and debris management, and provide temporary labor opportunities as part of the cleanup.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

34. **The overall risk rating for this project is assessed to be High**, because of the high risks associated with the macroeconomics, institutional capacity, fiduciary, and environment & social aspects. Risk categories that are rated Substantial or High are discussed in this section, along with the corresponding mitigation measures.

35. **Macroeconomic risk has been assessed as High.** The significant contraction in economic activity due to the destruction of productive capital is expected to make room for recovery, as private and public reconstruction takes place and tourism gradually resumes. Private and public external finance will be available to finance part of the reconstruction and recovery efforts, with a diligent and effective use of funds critical for fast recovery of the economy of Sint Maarten. Measures to strengthen public finances, as well as to address household and private sector credit constraints, will be needed to ensure adequate replacement of the destroyed capital and 'build back better'. A delay in economic recovery or a new natural disaster could aggravate public and private credit constraints, and lead to insufficient investment for economic activity to return to its long-run growth path.

36. **Institutional capacity for implementation and sustainability risk is rated High** as Sint Maarten's capacity has been constrained by hurricane damage, and the recovery program needs to be implemented rapidly. In addition, this is the first Bank engagement in the country and counterpart officials are not familiar with Bank requirements. Further, the project is to be implemented initially by an interim agency and subsequently by a new agency. The Bank will provide the necessary implementation support, including by bringing in international expertise where relevant. Implementation support will also include



adequate resources to support project implementation and capacity building.

37. **Fiduciary risk is rated High**, largely due to the lack of familiarity of the counterparts with World Bank requirements, particularly on procurement, and because new institutions will be implementing several projects at once. Mitigating measures include hands-on support from the Bank to the financial management (FM) and procurement teams in the IRC/NRPB. Implementation of standard FM and procurement practices may be further supplemented with outside capacity as needed.

38. **Environmental and social risk is rated High**. The temporary hurricane debris storage area and the municipal waste disposal site pose air quality risks from the ongoing fires, as well as risks associated with destabilization of waste slopes. These risks will be mitigated through environmental management plans and monitoring that will help respond to community and occupational health and safety concerns. Ending fires at the sites may require heavy machinery to excavate the waste to reach hot spots, which could present temporary risks of exacerbating this situation. This will be mitigated by ensuring that the contractor has the required highly specialized technical expertise and experience in similar situations, as well as by ensuring that proper environmental and safety procedures and environmental monitoring are in place. Safety measures will also be communicated to the public through an information and education campaign. Improvements at the municipal waste disposal site may also require land acquisition and physical relocation and may affect the livelihoods of informal waste-pickers. The displacement of these households will be mitigated by a Resettlement Action Plan (RAP).

39. **Political and governance risk is rated Substantial**; however, this risk is largely outside the project's control. There are also high expectations from the population on the speed of hurricane reconstruction efforts and resolving the current risks associated with debris management, which could lead to social dissatisfaction. Mitigation measures include: (i) design and implementation of a transparent communication plan to inform the public on project activities; and (ii) close monitoring of project progress. A detailed communication protocol will be included in the Project Operations Manual (POM).

40. **Technical design risk is rated Substantial**, as this is an emergency project and the design elements did not benefit from a traditional Bank engagement with the client. In addition, implementation capacity is limited, as the NRPB will be established as a new institution to manage post-Irma recovery activities. This risk is mitigated by striving to keep the project design simple and suitable for rapid implementation while supporting capacity building of NRPB. Continued joint work of Government counterparts and the Bank during the implementation phase will also mitigate the design risk.

41. **Climate change risk** (included in the Systematic Operations Risk-Rating Tool [SORT] table as 'other risks') **is Substantial**, based on the Climate and Disaster Risk Screening assessment. Sint Maarten is prone to natural disasters and adverse climatic events due to its location within the Caribbean hurricane belt. High winds, excessive rainfall, and flooding are the principal risk factors. Consensus in academia is pointing to a future of climate change with more frequent and more intensive extreme weather events. The combination of small size, isolation, and low capacity adds to the country's vulnerability to natural hazards and climate risks. The project is facing the challenge of potentially another major tropical event(s) and other extreme weathers during its implementation. This will create extra debris for collection, processing, and disposal, putting further stress to the already overstretched waste management system and the capacity-constrained landfill.



VI. APPRAISAL SUMMARY

A. Technical Feasibility

42. The rationale for the selected technical approach is based on a strategic decision to provide appropriate interventions that meet the emergency needs in Sint Maarten and, at the same time, improve practices to enhance disaster preparedness. The project addresses the key short-term issues of collection, storage, and processing of debris, as well as reducing the risks associated with debris management. The technical approach is designed to build on the experience to improve existing practices for collection, separation, processing, and treatment of debris to allow future debris clearance to be managed more efficiently and with greater speed, and with reduced environmental and safety risks. This will be done through improved technical guidelines, contractual specifications, operational requirements, contract supervision, and planning. All of these processes have established international methodologies and standards, which the project will adapt and apply in the context of the project and the situation in Sint Maarten.

B. Economic and Financial Analysis

43. Providing proper debris collection and management while incorporating labor-intensive activities has economic, social, health, and environmental benefits for Sint Maarten. Project activities under Component 1 have direct economic benefits to tourism, health, and employment and from recycling revenues.

44. **Tourism.** Incomplete debris collection and improper management of debris is affecting the recovery of tourism on the island post Hurricane Irma and may affect the attractiveness of the island for tourists in the long term. Studies have shown that litter and debris in beach resort areas such as Sint Maarten affect people's willingness to return to a beach or country and have been estimated to reduce tourism between 1 percent and 5 percent.¹ Fires at the municipal waste disposal site and the temporary debris storage site directly affect the environmental quality of Phillipsburg, where the cruise ships dock and where much of the on-island tourist attractions are located. During a recent fire at the municipal waste disposal site, a cruise ship threatened not to dock and a major tourist attraction nearby (a zipline adventure) remained closed for a few days. The project will improve aesthetics by reducing debris on the island and by reducing the occurrence of fires at the disposal site.

45. **Health.** Debris and debris management in Sint Maarten are increasing health risks due to: (i) poor air quality caused by the fires at the municipal waste disposal site; and (ii) disease impacts, as the uncollected debris provides a breeding ground for mosquito vectors. Of the 1,500-plus people who live in Phillipsburg, many are exposed to smoke from the burning waste. An emissions study has shown that the

¹ Schumann et al. (2017) in "The Economic Importance of Coastal and Marine Resources to Tourism in Barbados" reported that tourists in Barbados indicated strong preferences for clear water, healthy coral reefs, and high-quality beaches—and were unwilling to return to the country if these conditions worsened. A study in Southern California showed that Orange County residents were losing millions of dollars each year from beachgoers avoiding littered beaches in favor of choosing cleaner beaches that were farther away and more costly to reach (Leggett et al. 2014). Another study in Sweden, showed that marine debris on beaches reduced tourism by between 1 percent and 5 percent (OSPAR 2009).



emissions from the smoke on top of the waste sites contain toxic organic compounds (including benzene, dioxins, and furans) along with particulate matters exceeding international occupational standards. Exposure to unsafe levels of these compounds have been shown scientifically to be correlated with lung cardiovascular, and other diseases. An assessment of the cost of these impacts is not currently available, but it can be assumed that compounded impacts on health and correspondent costs over time could be significant. Studies in the Caribbean have also indicated that uncollected debris near houses accounts for between 10 percent and 20 percent of breeding habitats for *Aedes aegypti* and *Aedes albopictus*, mosquitos that carry dengue, chikungunya, and the zika virus.² Published estimates³ indicate that these viruses together cost Sint Maarten over US\$20 million per year in annualized health costs. A 2015 Health Survey Report⁴ indicated that of the sample pool of 75 medical cases reported in Sint Maarten with dengue-like symptoms, 80.7 percent were medically diagnosed with dengue fever. Likewise, 80.9 percent of the reported cases of chikungunya-like symptoms in Sint Maarten were medically confirmed for the same population size and reporting period. Since 2010, outbreaks of one or more of these diseases have occurred in the Caribbean, on average, every other year.⁵ As visitors avoid countries with these outbreaks, tourism is estimated to decrease between 3 percent and 4 percent in those years.⁶ With the increased debris, the risks of additional cases from these viruses increase in both outbreak and normal years. By addressing the fires, the project will substantially reduce emissions and improve air quality with significant impacts on long term costs. The project will also mitigate the risk of vector breeding sites reducing overall cost of treatment of vector borne infections.

46. **Recycling revenues.** Introducing procedures for separate collection, organization, and processing of debris materials will have further economic benefits for Sint Maarten, as it will allow certain material to be sold and reused with some financial gain, including for example, concrete and metals. Using the upgraded procedures, an estimated 2,000 tons of metals could be sold from the uncollected hurricane debris, as well as construction and demolition debris.

C. Financial Management and Disbursement

47. The Financial Management (FM) responsibilities of the project will initially be undertaken by the IRC, and then subsequently transferred to the newly established NRPB. Given that the Bureau is not yet operational, the FM assessment was conducted on the IRC in accordance with World Bank Policy on Investment Project Financing (IPF) and the Financial Management Practice Manual (issued by the Financial Management Sector Board on March 1, 2010). The assessment concluded that the IRC has an adequate FM system that can provide, with reasonable assurance, accurate and timely information on the status of the funds as required by the World Bank. Once the NRPB becomes operational, an FM assessment will be performed on the NRPB to ensure that it is capable of managing the FM functions before this responsibility

² *Aedes aegypti* in Jamaica, West Indies. Container productivity profiles to inform control strategies.

³ UNDP (United Nations Development Programme) and Red Cross. 2017. *A Socio-Economic Impact Assessment of the Zika Virus in Latin America and the Caribbean with a Focus on Brazil, Colombia, and Suriname*; Shepard et al. 2011; Bloch 2016.

⁴ Observatoire Sint Maarten Sint Martin Cross Border Health Study Report 2015.

⁵ Based on Pan American Health Organization (PAHO) disease incident data. www.paho.org.

⁶ Based on: Reuters. 2016. Jeffrey Dastin "Miami Hotel Bookings Slow, Airfares Fall Since Zika Outbreak." Study commissioned by the Greater Miami Convention and Visitors Bureau, <http://www.reuters.com/article/us-health-zika-travel-idUSKCN1112BX>; Malavankar, D. V., Puvar TI, Murtola TM, et al. 2009; UNDP (United Nations Development Programme) and Red Cross. 2017. *A Socio-Economic Impact Assessment of the Zika Virus in Latin America and the Caribbean with a Focus on Brazil, Colombia, and Suriname*.



and function are transferred to it. The details of the FM assessment are covered under Annex 2: Implementation Arrangements.

D. Procurement

48. Procurement activities for the supply of goods, works, and non-consulting and consulting services under the project, financed totally or partially by SDTF proceeds, will comply with the Bank's 'Procurement Regulations for IPF Borrowers' (November 2017). The IRC and its successor NRPB (once set up) will be responsible for carrying out all procurement activities under the project.

49. The procurement risk assessment confirmed that Sint Maarten, not being a client of the Bank, has no prior experience with Bank procurement, limited capacity to carry out procurement, and limited staff with experience in conducting international procurement. In addition, despite efforts to streamline procurement procedures and establish implementation arrangements to simplify the procurement procedures for the project, considerable lead times will likely be required to navigate the Government's procurement processes and procedures. Therefore, World Bank advisory support will be provided predominantly for the higher risk activities for the procurement of civil works, goods, non-consulting services, and the hiring of consultancy services. The IRC is committed to build its in-house capacity and a team of three procurement specialists has been assigned to handle project procurements, and work with the Bank to build their capacity.

50. The recipient, with close support from the Bank, has prepared a simplified version of the Project Procurement Strategy for Development (PPSD) that is acceptable to the Bank. The PPSD is focused on the main activities that are currently envisaged and summarizes the operational environment in which the project is being implemented, including market analysis, risk assessment, and alternative methods of carrying out procurement. The PPSD covers the following activities: (i) fire suppression; (ii) debris processing; (iii) vessel recovery, decommissioning, and salvage; (iv) disposal site operation; and (v) labor-intensive debris clearance activities. The details for these and any other additional activity will be included in the Procurement Plan, which will be subject to Bank review and clearance. The PPSD and the Procurement Plan will be updated during project implementation to reflect the best fit for purpose procurement arrangements to achieve the desired value for money. The Procurement Plan and its updates will be disclosed in the project website as well as the Bank website.

E. Safeguards

Social (including Safeguards)

51. The project will result in overall social benefits not only to the community living around the landfill but to the entire island, as it will properly manage debris, reduce health risks due to recurrent fires and vector-borne diseases, and generally improve aesthetics and environmental quality. It will also reduce risks associated with current debris management practices through improved occupational health and safety.

52. **Involuntary resettlement.** An estimated 100 to 300 households and/or businesses are located near the municipal disposal site. Improvements at the municipal waste disposal site may require land related compensation (land acquisition is not foreseen) and physical relocation and may affect livelihoods



of informal waste-pickers. The risks associated with exposure to the fire suppression activity and/or to recurrent fires will also require moving households and businesses in the proximity of the municipal waste disposal site either temporarily or permanently. The Environmental and Social Impact Assessment (ESIA) will identify the social impacts and risks, including those related to the community in the proximity of the municipal waste disposal site, and will recommend appropriate safety zones and mitigation measures. Any temporary or permanent displacement that will be needed will be addressed through the Resettlement Action Plan (RAP).

53. **Disadvantaged and vulnerable groups.** Households residing near the municipal waste disposal site are vulnerable. Safeguards instruments will consider the risks to, and impacts on, disadvantaged or vulnerable individuals or households who are more likely to be adversely affected due to their: age; gender; ethnicity; physical, mental, or other disability; social, civic, or health status; economic status; or other factors.

54. **Gender.** Overall, it is expected that project activities will help both women and men equally. Project design and implementation will however take into consideration measures to ensure that unintended negative impacts on women, girls, and vulnerable groups will be mitigated. Interviews conducted with women from the informal community in the vicinity of the municipal waste disposal site during project preparation indicated that a considerable number of households are headed by women. Accordingly, gender-related issues will be incorporated in the design of safeguards instruments.

Environment (including Safeguards)

55. The project will result in overall positive environmental benefits as it will properly manage debris, reduce risks related to fires and air quality at the municipal disposal site and temporary debris storage site, as well as to reduce health risks due to mosquito vectors and improve the country's aesthetics. It will also reduce risks associated with current debris management practices, including occupational health and safety and reduction of risks related to slope stability, fires and air pollution at the municipal disposal site and the temporary debris storage site. The project is rated Category A due to the risks associated with activities at the temporary debris storage site and the municipal waste disposal site. These higher risks are related to fire suppression activities for sub-surface fires due to the complexity of the task, possible air quality impacts, and worker and community health and safety issues in the context of undertaking this activity.

56. **Environmental safeguards triggered include** OP/BP 4.01 Environmental Assessment, OP/BP 4.04 Natural Habitats, OP/BP 4.09 Pest Management and OP/BP 4.11 Physical Cultural Resources. OP 4.01 is triggered due to potential occupational health and safety risks to both workers and the community. The policy on Natural Habitats is triggered on a precautionary basis, as some of the debris removal is in the Simpson Bay Lagoon, which is connected to an area that has been designated as a Ramsar Site (an ecologically sensitive site) where some boats have already been removed, while others remain to be salvaged. Extra care will therefore be built into the procedures to avoid negative impacts at the Ramsar Site. OP/BP 4.09 is triggered as management of the municipal waste disposal site may require managing pests (for example, flies, roaches, and rodents as well as mosquitos at the collection sites). OP/BP 4.11 is also triggered as a precaution in case of chance finds of an archeological and/or historical nature during construction activities.



57. **International Waterways.** International Waterways policy (OP/BP 7.50) is triggered as vessel recovery and salvaging will occur in the Simpson Bay lagoon, which Sint Maarten shares with the Collectivity of Saint Martin, which is part of the Republic of France. If not done properly, vessel recovery and salvaging could result in the pollution of this waterway, as fluids on board are a source of marine pollution when released into the lagoon. An Environment and Social Management Plan (ESMP) will be prepared before implementation and will outline the procedures for removing the boats, while making special provisions to avoid spills of oil, petroleum, and other potentially environmentally damaging materials. The Republic of France was notified as required under OP 7.50 but no response was received during the prescribed notification period. The proposed activities are neither expected to cause appreciable harm to the interests of the Republic of France nor are they expected to be appreciably harmed by the Republic of France's possible use of Simpson Bay.

58. **Safeguards Action Plan (SAP).** The SAP has been prepared and will be implemented in accordance with paragraph 12 of Section III of World Bank Policy on Investment Project Financing (IPF) which allows deferral of the preparation of safeguards requirements/instruments if the Bank deems the recipient to be in urgent need of assistance because of a disaster or conflict. Such an exception for the deferral of environmental and social requirements has been granted for this project, and the Bank has prepared the SAP as required under this deferral. The SAP is guided by the dual objective of ensuring that there is a road map for safeguards compliance during project implementation, and for providing clear guidance on the types of actions and instruments required to facilitate rapid implementation of emergency services. It provides a time-bound plan setting forth the steps and the sequential planning and coordination of project activities, and the preparation of the relevant safeguards instruments by the Government to ensure compliance with Bank safeguard policies.

59. As explained in the SAP, the following instruments will be developed by the client:

- (a) An ESIA and an ESMP to assess the environmental pollutants and risks associated with fire suppression.
- (b) An ESIA and an ESMP to assess the nature of the air, water, and other pollution at the temporary disposal site and the municipal waste disposal site and the impacts of planned improvements at the sites including the recontouring, upgrading and reorganization; improved operation, including management of pest control through the Pest Management Plan; and closure plan for the municipal waste disposal site, and rehabilitation and/or closure of the temporary disposal site, subject to the technical assessment to be conducted.
- (c) ESMPs will be developed to manage the risks associated with specific project activities, include:
 - (i) Recovery of recreational boats (yachts and sailboats) and small commercial vessels (barges) in Simpson Bay (addressing impacts that include health and safety, removal and management of oils and gasoline, and dust and waste management).
 - (ii) Creation of recreational diving and/or fish breeding sites in the ocean and debris collection, clearance, and storage (addressing issues, including appropriate siting).



(iii) Processing of the debris to maximize ecological benefits and avoid contamination.

(d) A general ESMP to manage risks related to general works (including air and water pollution risks, health and safety issues, worker influx issues, and spill management) that do not warrant a full ESMP (for example, car removal and salvaging - electronics are stripped and largely reused - soil transport, labor-intensive debris clearance, and small works).

60. All these instruments will be prepared in line with World Bank Group Environmental, Health, and Safety General Guidelines, and the World Bank Group Environmental, Health, and Safety Industry Sector Guidelines for Waste Management Facilities.

61. For social safeguards, the ESIA (for the fire suppression activities, and the upgrading, operation, and the closure plan of the municipal waste disposal site and the temporary debris storage site under Sub-component 1. (b) (ii) and (iii) of the project) will determine the households and businesses that will need to be temporarily or permanently resettled and a RAP (s) will be developed in parallel. Any impacts on livelihoods will be assessed as part of the ESIA of the particular activities and will be addressed as part of any associated ESMP. To gain valuable time for project implementation, the ESIA and the RAP for the fire suppression activity will be initiated at the earliest while the project is being prepared. The ESIA and potentially the associated RAP for the upgrading, operation, and/or closure of the disposal sites will be conducted immediately after the project approval. The timelines for the preparation, consultation, and disclosure of the ESIA are provided in Table 4.2 of the Safeguards Action Plan (SAP) in Annex 4. As part of the SAP, the IRC will be staffed with the necessary specialists and will contract the necessary work. Considering the limited capacity of the client, close support from the Bank team is expected on meeting the safeguards requirements.

62. **Grievance and Complaints Redress Mechanism.** IRC/NRPB will utilize the Grievance and Complaints Redress Mechanism from the Emergency Recovery Project (ERP) already under implementation. The procedures and processes for submitting complaints will be communicated to the public before the start of works. The GRM includes a means of receiving and handling complaints from anyone adversely affected by the project and on the delivery of project benefits.

F. World Bank Grievance Redress

63. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: St Maarten

Sint Maarten Emergency Debris Management Project

Project Development Objectives(s)

To manage debris from the hurricane and reconstruction activities to facilitate recovery and reduce risks.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	End Target
Debris Clearance and Management			
Volume of land-based debris safely cleared and processed (Cubic Meter(m3))		0.00	150,000.00
Vessels safely recovered and salvaged (Number)		0.00	100.00
Extinguish fires at the two disposal sites (the municipal disposal site and the temporary Irma debris site) (Number)		0.00	2.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	End Target
Debris Clearance and Management			
Volume of land-based debris collected (Cubic Meter(m3))		0.00	80,000.00



Indicator Name	DLI	Baseline	End Target
Volume of land-based debris processed (Cubic Meter(m3))		0.00	150,000.00
percentage of PM2.5 concentration reduced at disposal site (Percentage)		0.00	70.00
Number of districts cleared through labor intensive program (Number)		0.00	8.00
Percentage of households with improved Aedes mosquitos index (Percentage)		0.00	100.00
Technical Assistance			
Number of TA activities implemented to improve debris management (Number)		0.00	5.00
Project Management and Implementation Support			
Percentage of months with adequate staffing, under the project (Percentage)		0.00	90.00
Percentage of contracts for debris collection executed (Percentage)		0.00	100.00
Percentage of operational contracts executed for debris processing (Percentage)		0.00	100.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Volume of land-based debris safely cleared and processed		Monthly	IRC and NRPB	Project Progress Report	Ministry of Public Housing, Spatial Planning, Environment and Infrastructure



					(VROMI)
Vessels safely recovered and salvaged		Monthly	IRC and NRPB	Project Progress Report	Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI) Department of Civil Aviation, Shipping and Maritime Affairs
Extinguish fires at the two disposal sites (the municipal disposal site and the temporary Irma debris site)		Monthly	IRC/NRPB	Project Progress Reports	IRC/NRPB and VROMI

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Volume of land-based debris collected		Monthly	IRC and NRPB	Project Progress Report	Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI)
Volume of land-based debris processed		Monthly	IRC and NRPB	Project Progress Report	VROMI
percentage of PM2.5 concentration reduced at disposal site	This will be measured by the 8-hour weighted average exposure of PM2.5 concentration for personnel exposures. The baseline was	Monthly	IRC and NRPB	Project Progress Reports	VROMI



	collected in the Air Screening Exercise carried out in Aug. 2018. In the Air Screening Exercise, Personnel samples were placed in track hoes while operators performed activities that were reported to be typical of a work day managing incoming municipal solid waste and hurricane related debris. Test stations were set up in the cabs of heavy equipment behind the operator’s chair, with the intakes of the sampling media drawing air from head levels near the breathing zone (approximately one foot from the operator’s face).				
Number of districts cleared through labor intensive program		Monthly	IRC and NRPB	Project Progress Reports	VROMI
Percentage of households with improved Aedes mosquitos index		Monthly	IRC and NRPB	Project Progress Reports	Ministry of Public Health, Social Development and Labor (VSA)
Number of TA activities implemented to improve debris management		Monthly	IRC and NRPB	Project Progress Reports	VROMI



Percentage of months with adequate staffing, under the project		Monthly	IRC, NRPB	Project Progress Reports	IRC, NRPB, VROMI
Percentage of contracts for debris collection executed		Monthly	IRC and NRPB	Project Progress Report	IRC and NRPB
Percentage of operational contracts executed for debris processing		Monthly	IRC and NRPB	Project Progress Reports	IRC and NRPB



ANNEX 1: DETAILED PROJECT DESCRIPTION

Project Rationale and Approach

1. Following the devastation caused by Hurricanes Irma and Maria, the Government of Sint Maarten established a program to help in the reconstruction, for which the Netherlands has allocated €470 million. A large part of the funding will go into an SDTF to be managed by the World Bank.
2. As part of the preparatory activities for the establishment of the SDTF, the Government of Sint Maarten and the World Bank prepared a consolidated NRRP that prioritizes short-, medium-, and long-term needs for the recovery, reconstruction, and resilience of Sint Maarten. This plan includes estimates of the financial requirements, costs, and investments that are necessary to build Sint Maarten back better. The outcomes expected from the program are: (i) resilient recovery of social sectors in affected communities and the reestablishment of businesses continuity; (ii) resilient rehabilitation and reconstruction of critical infrastructure; and (iii) strengthening of the country's readiness to reduce and address future impacts of natural disasters and climate change. One of the identified priorities relates to debris removal, which is the focus of this project.
3. The hurricanes left debris scattered across Sint Maarten and the subsequent demolition and reconstruction activities continue to add to this quantity of debris. It is estimated that over 100,000 m³ of hurricane debris has been collected and is stored either at a temporary storage site near Phillipsburg (Pond Island) or disposed in the municipal waste disposal site which is located adjacent to this site. It is estimated that an additional 100,000 m³ of debris, including hurricane debris and debris from the reconstruction activities, will need to be collected. It is estimated that up to 130 damaged vessels are in and around Simpson Bay, one of the main bays on the island.
4. Over the years, waste management at the municipal dumpsite has suffered from a longstanding absence of separation, recycling, and proper processing, and insufficient compacting and coverage of waste on the landfill, leading to the development of substantial risks, including a smoldering underground fire, long before the passage of Irma. This fire causes regular flareups with significant negative impacts on the living environment of the population in the island and on the economy.
5. In addition, the debris that remains on public and private properties is causing problems at multiple sites: where it has fallen and continues to lie, the debris is making reconstruction more difficult; poses increased health risks, as it increases breeding sites for *Aedes* mosquitos, which are vectors for spreading diseases such as dengue, chikungunya, and zika; and is despoiling the beauty of Sint Maarten. The lack of comprehensive arrangements for processing and final disposal has left the debris to continue to accumulate, increasing these risks. The vessels in Simpson Bay represent a risk to property during the storm season and interfere with navigation. Comprehensive arrangements have not been made for recovery, salvaging, and disposal of these vessels.
6. The uncleared debris from the hurricane, and the debris that will be produced from vessel recovery and salvaging and reconstruction activities, needs to be collected in a manner that separates the debris for reuse, recycling, and treatment, along with the labor-intensive clearance that can help restore the aesthetics of Sint Maarten and reduce the potential health risks that the debris poses as breeding sites



for mosquitos. Debris already collected will also need to be handled and processed in an environmentally sound manner. This will need to be done in a way that reduces the risks of the current debris management practices, including in the clearance and collection processes. It will need to reduce the urgent fire and other risks at the sites being used for debris storage and disposal.

Institutional Arrangements for Debris Management

7. The ministry responsible for debris management in Sint Maarten is VROMI. This ministry manages debris collection contracts and a temporary hurricane debris storage site, as well as a municipal waste disposal site which is also receiving debris on Pond Island. VROMI also manages solid waste collection and district cleaning.

8. The Ministry of Public Health, Social Development, and Labor (VSA) manages a vector control program that includes a program to reduce mosquito vectors, and the role of debris in retaining water that serves as breeding sites for these mosquitos. The program assesses house plots and recommends clearance of the debris and monitors the reduction of disease risk.

9. The Department of Civil Aviation, Shipping, and Maritime Affairs oversees the management of Simpson Bay, from where the vessels will be recovered for subsequent salvaging. The Nature Foundation and the Ministry of Justice also have a role in declaring some debris as abandoned property. The Simpson Lagoon Authority Cooperation (TEATT) oversees the management of Simpson Bay, from where vessels need to be recovered and salvaged.

Project Description

10. The PDO is to manage debris from the hurricane and reconstruction activities to facilitate recovery and reduce risks. To achieve this objective, the project will focus on the following:

- (a) Clearing and collecting the debris produced by the hurricane, reconstruction and recovery activities in a manner that allows for separation of different types of waste, and facilitates subsequent processing, treatment, and disposal of debris and encourages employment generation through labor-intensive clearance activities.
- (b) Reducing the environmental, slope stability and fire risks, including through fire suppression, at the debris temporary storage and municipal waste disposal sites, along with reorganizing the sites to allow for better storage, processing, and treatment of current and future debris.
- (c) Removing and recovering vessels in Simpson Bay to reduce the risk of property damage during a storm and restore the natural flow of the bay and ensure that navigation is not impeded.
- (d) Recycling, reusing, processing, and/or disposing of the debris and salvaged vessels in an environmentally sound manner.

11. The project will build back better and establish the necessary procedures, equipment, and infrastructure to better manage debris in the future.



12. **Component 1: Debris Clearance and Management (US\$22.0 million).** Provision of goods, works, non-consulting services, consulting services, and Cash Compensation and Assistance, in support of and related to the following activities:
13. **Sub-component 1. (a): Collection of debris.** This subcomponent will focus on collecting debris as part of the recovery process. It will finance debris collection that will separate the debris by type of material to allow for easier processing and treatment. This experience will be used to upgrade standards for collection as part of Component 3.
14. **Sub-component 1. (b):** Reducing risks of operation, fire suppression, reorganization, rehabilitation, and upgrading of debris storage and municipal disposal sites. This sub-component will finance the reduction of risks through extinguishing fires at the disposal and debris storage sites, recontouring, site rehabilitation and restoration activities and would allow for better storage, separation, and organization of debris for recycling, processing, or disposal and a plan for safe closure. It will include a combination of upgrading the sites to improve organization and layout, and the introduction of improved operational practices to allow for management that would enhance separation, improve storage, and reduce the environmental and safety risks of operation. Financing will cover: (i) purchase of equipment for debris management and to protect workers from risks present at the disposal and debris storage sites; (ii) fire suppression activities at the disposal and debris storage sites; (iii) recontour and reorganize the layout of the disposal site, allow for better separation and recycling, and improve operations; (iv) provision of operation costs related to managing the disposal site under improved operational procedures; (v) development of a plan for the safe closure of the municipal waste disposal site; and (vi) subject to findings of further technical assessment and Bank's review, supporting rehabilitation, restoration, and/or closure of the temporary Irma debris storage site.
15. **Sub-component 1. (c): Debris processing and disposal.** This activity will manage the debris after collection and storage. A plan will be developed during implementation to provide an environmentally sound low-cost solution for management of the debris, and may involve recycling, reuse, treatment, destruction, or disposal of the debris materials. Depending on the final plan, this subcomponent will finance a combination of equipment and facilities to manage the debris and service contracts that would undertake treatment, disposal, or transport of the materials.
16. **Sub-component 1. (d): Vessel recovery and salvaging.** This activity would finance the removal and salvage of a portion of the vessels found in Simpson Bay and Simpson Bay Lagoon. The project would establish a plan and process which would ensure that ownership, insurance, and other legal issues are resolved and proper communication with owners before salvaging. A contractor would be hired to salvage the ships, break them down, treat them, and recycle and dispose of the materials in an environmentally sound manner.
17. **Sub-component 1. (e): Debris clearance.** This activity will finance: (i) the removal of debris from public spaces and private properties to curbside; (ii) collection of debris for vector control purposes; (iii) assessment, monitoring, and supervision of debris-related vectors; and (iv) beautification in public areas, focusing on debris removal and landscaping.



18. This component would also finance associated technical studies or technical assistance, as needed and agreed between the Bank and the borrower, corresponding supervision activities, and relevant social and environmental safeguards instruments for selected investments.

19. **Component 2: Technical Assistance (US\$2.5 million).** Activities identified above will be supplemented by relevant TA to support better debris management. In line with activities identified under Component 1, the TA will support the following elements:

- (a) **Technical design and operational support.** The project will finance consultants to support the development of designs and technical specifications for the proposed goods and works under Component 1.
- (b) **Emergency debris management plan.** The project will finance the development and support the formalization (approving guidelines, legal, and contractual support to putting in place contingencies) of a plan for debris management in case of an emergency, including a guide for debris inventory; technical specifications for debris collection, handling, and processing; pre-identification of temporary disposal and processing sites; and development of an approach for precontracting, including draft contracts.
- (c) **Legal and training support for contract management.** The project would provide legal support to improve debris management and solid waste contracts, and provision of training and consultants to support drafting, negotiation, and management of infrastructure and operational contracts.
- (d) **Support to improved debris management and vector control services.** Provision of support for the adoption and implementation of improved debris management and debris clearance-related vector control services rules and regulations and policies.
- (e) **Communications and citizen engagement strategy.** Implementation of a communications and citizen engagement plan for debris management, vector control and solid waste management, including a complaints system, citizen engagement activities, education, and a public awareness campaign. A debris collection system requires, by necessity, the participation of Sint Maarten's citizens. For the labor-intensive debris collection sub-component, for example, it will be impossible to collect backyard debris without being granted permission to enter private property to evaluate the size and composition of the debris before helping homeowners carry the debris to the curb. Getting permission to enter private property and carry debris requires excellent communications with homeowners on the purpose of the collection, the schedule of collection, what is required of the property owner, and so on. The client will develop a plan to assess: (i) the type of media to use to communicate with people in Sint Maarten (for example, radio, TV, Facebook, and WhatsApp); (ii) timing of communications; and (iii) how best to ensure citizen engagement (that is, active engagement, e.g., citizens who are actively engaged may call a hotline to report debris, form a neighborhood clean-up group that brings other waste to the curb). The plan will be pivotal in determining how to actively engage citizens of every age and strata in society and provide guidelines as key to a successful roll out of this sub-component.
- (f) **Environmental and health monitoring.** The project will finance the monitoring of environmental conditions and health as part of the debris collection and processing activities to improve the safety of workers and the population, and to monitor the improvements made because of the project.



20. **Component 3: Project Management and Implementation Support (US\$0.5 million).** This component will support the following:

- (a) Strengthening and development of the institutional capacity of Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (“VROMI”) in the management of the Project, in relation to solid waste management infrastructure, including monitoring and evaluation, supervision of solid waste management activities, defining specific needs for goods acquisition and/or technical assistance, coordination with, as relevant, the Interim Recovery Committee (“IRC”) and/or the National Recovery Program Bureau (“NRPB”) to ensure complementarity with the Recipient’s related programs.
- (b) Provision of support, under, as relevant, the IRC and/or the NRPB, to oversee the Project and liaise with VROMI, including in respect to procurement under the Project.
- (c) Provision of operating costs for the project.

21. A Project Manager under NRPB will be tasked with overseeing the project and will liaise with the Project Manager - Waste in VROMI. The latter will provide all relevant information—for example, technical specifications, ToRs, and other needs—to the NRPB Project Manager. The NRPB Project Manager will report to the Program Manager, deliver ToRs, technical specifications, etc., to the procurement team, and oversee and coordinate, in particular, the Debris Management Project.



ANNEX 2: IMPLEMENTATION ARRANGEMENTS

1. NRPB will be responsible for project implementation and coordination of the work program with the relevant ministries. Until the Bureau is in place, the Project Implementation Unit will initially be the IRC, which was established by the government to coordinate Trust Fund projects. The IRC will prepare, implement, coordinate, and monitor World Bank project interventions. Project implementation responsibility will subsequently be transferred to the Bureau. The Bureau will be responsible for technical, administrative, legal, financial, and procurement matters and will have staff for the project's effective implementation. It will have overall responsibility for ensuring compliance with fiduciary agreements, procurement guidelines, social and environmental management, monitoring, reporting, and evaluation of processes and results.

2. The IRC/NRPB will also collaborate with VROMI, which will provide technical oversight, including preparing technical and bidding documents and works supervision. It will recommend payment and acceptance of the works and implement the improved practices for debris management. It will also coordinate with the VSA, which will provide technical oversight to the mosquito control elements of the project. VSA will also coordinate with VROMI and the IRC/NRPB on air quality monitoring as part of the safeguards documents for fire suppression activities. Coordination with the Department of Civil Aviation, Shipping, and Maritime Affairs will also be undertaken on the overall program, including ship salvaging. The Nature Foundation and the Ministry of Justice and TEATT (Simpson Lagoon Authority Cooperation) may also need to be consulted and coordinated with to execute various activities.

Procurement Arrangements

3. Procurement activities for the supply of goods, works, and non-consulting and consulting services under the project, financed totally or partially with SDTF proceeds, will comply with the World Bank's 'Procurement Regulations for IPF Borrowers' (November 2017). The IRC, and its successor NRPB, will be responsible for carrying out procurement financed under the project.

4. The procurement risk assessment confirmed that Sint Maarten, not being a client of the World Bank, has: not had prior experience with World Bank projects; limited capacity to carry out procurement; and limited staff with experience to conduct international procurement. In addition, despite all efforts to streamline procurement procedures and establish implementation arrangements to simplify the procurement procedures for the project, considerable lead times are likely to be needed to navigate the government's procurement processes and procedures. Therefore, an Hands-on Implementation Support (HEIS) arrangement will be put in place to support the higher-risk activities for the procurement of civil works, goods, and non-consulting services and hiring of consultancy services. The IRC is committed to build its in-house capacity and a team of three procurement specialists has been assigned to handle project procurement work with guidance from the Bank and to build capacity.

5. The recipient, with close support from the World Bank, has prepared a simplified version of the PPSD acceptable to the Bank. The PPSD is focused on the main activities that are currently envisaged and summarizes the operational environment in which the project is being implemented. It includes a market analysis, risk assessment, and assessment of alternatives to carry out the procurement. The PPSD covers the following project activities: (i) fire suppression; (ii) debris processing; (iii) vessel recovery and salvaging; (iv) disposal site operation; (v) soil purchase and transport; (vi) labor-intensive debris clearance



activities; and (vii) supervision of labor-intensive debris clearance. The PPSD will be updated as required during project implementation to reflect the best fit for purpose procurement arrangements to achieve the desired value for money.

6. The PPSD provides adequate supporting market analysis for the selection methods detailed in the Procurement Plan. Based on preliminary information, the mandatory procurement prior review thresholds detailed in Annex I of the World Bank's Procurement Procedure will be observed. All procurement procedures, including roles and responsibilities of different participating entities and units, will be defined in the POM.

7. **Procurement Plan.** The project is expected to finance civil works, goods, consultancy services, and non-consultancy services. The details of activities that are expected to be carried out during the first 18 months and the procurement arrangements for each will be detailed in the Procurement Plan, which will be reviewed and cleared by the Bank. In accordance with paragraph 5.9 of the Procurement Regulations, the World Bank's Systematic Tracking and Exchanges in Procurement (STEP) system will be used to prepare, clear, and update the Procurement Plan and conduct procurement transactions for the project.

8. **Bidding documents.** The standard bidding documents of the Bank will be used for all contracts subject to international competitive procurement and those contracts as specified in the Procurement Plan tables in STEP. For bidding processes under the national market approach, documents for bidding and requests for quotations will be agreed with the Bank.

9. **Key procurement issues.** The key issues concerning project procurement include: (i) the lack of prior experience of the IRC in implementing projects financed by the World Bank; (ii) the number of different contracts that will be procured and to be managed by the IRC procurement team; (iii) the capacity of Sint Maarten's construction labor force to historically support only one large construction project at a time; (iv) potential interference between different firms operating the dump (extracting metals, stone, and rubble); and (v) cost overruns, given the nature of the rehabilitation work and the relatively long duration. Mitigation measures to deal with project specific procurement risks have been defined in the PPSD.

10. **Frequency of procurement supervision.** In addition to prior review supervision to be carried out by the Bank, annual supervision missions will visit the field to carry out post review of one in ten procurement actions.

Financial Management

11. **Risk assessment.** The FM responsibilities of this project will eventually be undertaken by the NRPB, which is a new entity that is not yet operational. Once the NRPB is operational, a FM assessment will be performed to ensure that the NRPB is capable of managing the FM functions before transferring this responsibility and function to them. Both the IRC and NRPB are both newly established entities and are inexperienced with Bank FM procedures.

12. **Staffing.** There are three FM staff assigned to the IRC, who will initially have the responsibility for the FM aspects of the projects. Although the three-assigned staff are experienced finance personnel, they do not have the bandwidth as the project responsibilities are additional to their daily government



responsibilities. Given such, two additional individuals will also be assigned to the IRC for the daily accounting functions for the project. The Bank FM specialist will provide hands-on training on the Bank's policies and guidelines to these FM staff.

13. **Budgeting.** A budget will be prepared by the IRC/NRPB for the life of the project, with guidance from the Bank. In addition, an annual budget will be prepared and will be periodically reviewed and updated as needed to reflect implementation progress. Quarterly variance analysis (actual versus budgeted expenditures) will also be prepared and included in the quarterly progress reports.

14. **Accounting and internal controls.** Project transactions will be accounted on a cash basis and will be maintained in the accounting system, QuickBooks. A separate profile will be established for this project in QuickBooks. Although the project will have an operation manual, the daily financial management functions of the project will be guided by a financial procedures manual used to govern all Bank financed project, managed by the IRC. The manual will be updated as needed during the life of the project to reflect the current procedures and processes.

15. **Flow of funds.** The following disbursement methods will be available: Advance, Reimbursement, and Direct Payment, with Advance being the primary method of disbursement. Advances will be provided to the project-specific Designated Account maintained by the IRC/NRPB at the Central Bank of Curacao and Sint Maarten. Funds will be periodically transferred from the Designated Account to a segregated US dollar operating account to finance project activities. The operating account will be maintained at the Windward Island Bank Ltd.

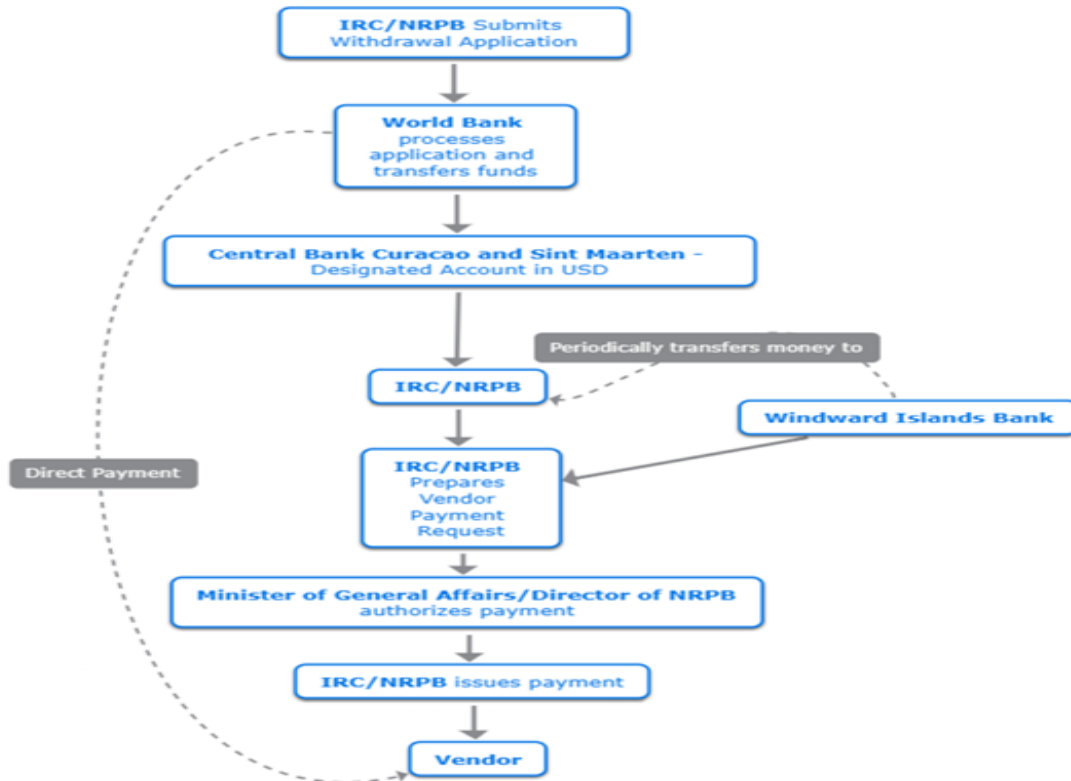
16. Advances are based on six-months' cash forecast and, subsequently, quarterly interim financial reports (IFRs) which will be used for the documentation of expenditures and the further requests for funds. The minimum application size for Direct Payment and Reimbursement are indicated in the Disbursement Letter for the project. The overall disbursement arrangements will follow standard disbursement policies and procedures established in the Disbursement Guidelines for Investment Project Financing, dated February 2017, and in the Disbursement Letter of the project.

17. Because the Project will also finance the resettlement costs resulted from project activities, in order to better manage that flow of funds, IFRs will be customized to facilitate the monitoring of some expenditures related with resettlement compensation. These expenditures will include, namely Cash-Payments and Assistance, payment made for procurement of real property for resettlement, and other expenditures caused by involuntary resettlement and financed under the Project. The final forms of expenditures will be determined and defined in RAP. And the implementation of the RAP will provide the required details in types of expenditures, amounts paid, and payees with correspondent documentation.

18. Before submitting Withdrawal Applications to the Bank for disbursement purposes, the Project Implementing Agency should submit the quarterly IFR to the Bank's Task Team for review and clearance. Bank disbursements will be made based on Task Team's approval of the information provided as part of the IFR, including cash-flow forecasts and satisfactory expenditure details.



Figure 2.1. Funds Flow



19. **Reporting.** Unaudited IFRs are required quarterly and will be submitted to the Bank within 45 days of each calendar quarter. External audits are required biannually for the first year and a half of implementation (from the date of the Grant Agreement becoming effective till December 31, 2019) and thereafter covering one fiscal year (ending December 31). The audit reports are due to the World Bank no later than six months after the end of each audit period.

Safeguards

20. The project has prepared an SAP (see Annex 4) in accordance with Paragraph 12 of Section III of the World Bank's Policy on Investment Project Financing, which allows certain exceptions to projects in situations of urgent need or capacity constraints, including deferral of safeguards requirements, if the World Bank deems the recipient to be in urgent need of assistance because of a disaster or conflict.

21. The plan provides time-bound steps and the sequential planning and coordination for project activities and the preparation of the relevant safeguards instruments by the Government of Sint Maarten to ensure compliance with World Bank safeguard policies. The IRC/NRPB will be responsible for implementation of the SAP and will collaborate with VROMI and VSA in providing technical oversight, including technical review of documents and supervision.



ANNEX 3: IMPLEMENTATION SUPPORT PLAN

1. Bank implementation support will focus on: (i) monitoring project implementation progress and evaluating results on the ground; (ii) addressing the principal risks (technical, fiduciary, and environmental & social risks); and (iii) providing the necessary technical advice on debris clearance management and administration of the labor-intensive program. Project implementation will be reviewed by Bank implementation support missions and support will also be provided through continuous exchange of correspondence and regular communications.
2. **Procurement.** Implementation support will include: (i) reviewing procurement documents and providing timely no-objections; (ii) providing detailed guidance to the project staff on the Bank's Procurement Regulations; (iii) monitoring procurement progress against the detailed Procurement Plan; (iv) reviewing contract management activities; and (v) identifying capacity-building/training needs of project staff on procurement processing and providing training, as required.
3. **FM.** Implementation support missions will review the functioning of the project's FM system, including, but not limited to, accounting, reporting, and internal controls. Support will be provided through regular interactions, half-yearly implementation support missions, and thematic supervisions missions, as required.
4. **Environmental and social safeguards.** Bank safeguards specialists will provide implementation support to the Government in monitoring the project activities and to help the Government ensure compliance with the Bank's safeguard policies/procedures and the agreed readiness criteria for activities related to environmental and social safeguards. Implementation support will be provided through regular interactions, half-yearly implementation support missions, and thematic review missions, as required. World Bank safeguard specialists will undertake field visits and provide guidance to the PMU on safeguards management and for implementation of mitigation actions.
5. **Technical support.** Expert advice will be provided at the beginning of the project to assist the Government in developing a strategy and advice on technical specifications for debris clearance and removal, and on the approach for disposal site fire suppression and health and safety issues. Experts will be included in the Bank team to provide implementation support on key technical issues.

Implementation Support Plan and Resource Requirements

6. Project implementation support will involve the following activities:
 - Up-front technical support to assist the Government on technical approaches and specifications
 - At least two regular implementation support missions in a year
 - Intermediate technical missions by specialists, as needed
 - Monthly implementation progress reports (physical and financial progress) prepared by the IRC/NRPB



- A midterm review around halfway in project implementation to review progress and assess the need for any mid-course corrections
- An Implementation Completion and Results Report (ICR) at the end of the project to assess achievement of the PDO and document lessons learned

7. The Implementation Support Plan in Tables 3.1 indicates the focus areas for implementation support and the skills required to provide implementation support during the initial and subsequent periods of the project. It will be reviewed regularly and updated as and when required during project implementation.

Table 3.1. Focus of Implementation Support

Time (FY19–FY21)	Focus	Skills Needed
Q1	<ul style="list-style-type: none"> • Implementation arrangements • FM systems functioning effectively • Procurement practices following the World Bank norms • Environment and social safeguards • Technical advice on disposal site fire suppression and control • Technical advice on debris management • Training in environmental safeguards 	<ul style="list-style-type: none"> • Procurement specialist • FM specialist • Environment and safeguards specialist • Landfill fire expert • Environmental, health, and safety expert • Team of experts on debris management • Task team leader (TTL) • World Bank safeguards consultants to undertake the training
Q2	<ul style="list-style-type: none"> • Technical support for implementing activities per component and subcomponent • Routine FM and procurement reviews • Management of safeguards and monitoring of implementation of safeguards-related measures • M&E • Adjustment of plan for implementing activities per component and subcomponent • Technical advice on disposal site fire suppression and control • Technical advice on debris management 	<ul style="list-style-type: none"> • Procurement specialist • FM specialist • Environment and safeguards specialist • M&E specialist • Landfill fire expert • Debris management specialist • TTL
Q3	<ul style="list-style-type: none"> • Midterm review • Technical support for implementing • Routine FM and procurement reviews • Management of safeguards and monitoring of implementation of safeguards-related measures • M&E • Conducting of midterm review • Technical advice on debris management 	<ul style="list-style-type: none"> • Procurement specialist • FM specialist • Environment and safeguards specialist • Technical guidance support • Landfill fire expert • Debris management specialist • TTL



Time (FY19–FY21)	Focus	Skills Needed
Q4	<ul style="list-style-type: none">• Routine FM and procurement reviews• Management of safeguards and monitoring of implementation of safeguards-related measures M&E• Technical advice on debris management	<ul style="list-style-type: none">• Procurement specialist• FM specialist• TTL
Q1 (FY20)–Q4 (FY21)	<ul style="list-style-type: none">• Technical support for implementing activities per component and subcomponent• Routine FM and procurement reviews• Management of safeguards and monitoring of implementation of safeguards-related measures• M&E• Adjustment of plan for implementing activities per component and subcomponent• Technical advice on debris management	<ul style="list-style-type: none">• Procurement specialist• FM specialist• Debris management specialist• TTL
Q1 (FY22)	<ul style="list-style-type: none">• Procurement and FM• M&E• ICR preparation	<ul style="list-style-type: none">• Procurement specialist• FM specialist• TTL• ICR author



ANNEX 4: SAFEGUARDS ACTION PLAN

1. The Sint Maarten Emergency Recovery Program comprises a short-term program of priority projects to be financed through the World Bank and/or to be directly administered by the World Bank, using the Netherlands SDTF and a longer-term program, financed from Netherlands SDTF. These projects would be managed by the NRPB in accordance with World Bank fiduciary and safeguards procedures.

Background

2. Hurricane Irma resulted in an enormous quantity of debris from property damage and the subsequent reconstruction activities. This debris needs to be managed urgently, as it presents environmental, health, and safety risks, and it is impeding reconstruction. Insufficient and incomplete practices related to the collection, storage, processing, and disposal of debris as part of the response to the emergency have increased environmental risks. The project is thus designed to address the urgent needs related to both the debris that needs to be managed and the introduction of corrective measures to address the environmental risks of current and past debris management practices.

3. **Debris management in Sint Maarten.** The hurricanes caused extensive property damage, producing debris both from the damage itself and the subsequent demolition and reconstruction activities. Thus far an estimated 100,000 m³ of debris has been cleared, collected, and remains in temporary storage; an estimated 100,000 m³ remains in public spaces or will be generated by the ongoing demolition and reconstruction activities. An estimated 130 shipwrecks also remain in the main lagoon (Simpson Bay) because of the hurricane. Hurricane debris that remains in public and private properties is a barrier to reconstruction; contributes to negative aesthetic impacts; and provides breeding grounds for mosquitos that carry dengue, chikungunya, and zika, which pose direct health risks to the population, as well as economic losses in the tourism industry due to negative media coverage.

4. The management of the debris that has been cleared thus far has been incomplete, and most of it has not been recycled, treated or disposed. This has created environmental and social risks and will increase the eventual costs for its proper management because of how it was handled. Currently, the collection debris is not carried out in a manner that allows for separation by type of debris, a practice that would facilitate recycling and treatment, and reduce costs. Limited final treatment, disposal, and/or sale of the debris has also resulted in accumulated debris at temporary storage and the municipal waste disposal site, with concomitant health and environmental risks. Abandoned vessels that were damaged in the storm also pose risks to property and the environment, are a navigational hazard, and are reducing the aesthetics of important tourism areas.

5. The Pond Island near Philipsburg hosts several sites receiving debris from the hurricane and reconstruction activities, including a temporary storage area designated for debris, and the municipal waste disposal site, where debris is mixed with household and commercial waste. The sites and their management pose environmental and health risks, which have been exacerbated by the debris influx. Of particular concern at these sites is the existence of subsurface fires with temperatures exceeding 300°C in places. The risks from such a subsurface fire include: (i) creation of unstable areas (crevasses and pits) that could result in the movement and collapse of the slope; and (ii) the effects on air quality from the smoke/vapor from deeply buried smoldering toxic waste and odor emitted from the site.



6. Extinguishing/suppressing the subsurface fires is therefore an urgent priority that calls for immediate technical measures, dedicated financial resources, and concerted efforts by the Government.

Project Design

7. The project will manage debris from the 2017 hurricane season and reconstruction activities including clearance, collection, processing, and disposal of debris and recovery and salvaging of vessels. In addition, as the environmental risks of inappropriate debris management were exacerbated by the urgent need to clear debris as part of the hurricane response, the project design explicitly includes the reduction of the environmental risks of the current debris management practices.

8. The project addresses the deficiencies in debris collection that have led to lack of recycling, and risks related to disposal and storage; establishes and implements improved processing and disposal, replacing incomplete and inadequate practices; undertakes fire suppression at the debris storage and disposal sites; rehabilitates the temporary debris storage area; and improves standards of operation at the municipal waste disposal site. It also will upgrade the occupational health and safety standards for debris management.

Project Objectives and Activities

9. The PDO is to manage debris from the hurricane and reconstruction activities to facilitate recovery and reduce risks.

10. The main activities of the project include: (i) collection of debris; (ii) fire suppression, reorganizing, and upgrading the debris storage and municipal waste disposal site; (iii) debris processing and disposal; (iv) vessel salvaging; and (v) debris clearance. The project will also finance TA to support environmental and social elements, including a communications strategy, citizen engagement, and environmental and health monitoring.

Safeguards Action Plan

11. A SAP has been prepared and will be implemented in accordance with Paragraph 12 of Section III of the World Bank's Policy on Investment Project Financing in situations of urgent need or capacity constraints, which allows deferral of the preparation of safeguards requirements/instruments if the World Bank deems the recipient to be in urgent need of assistance because of a disaster or conflict. Such an exception for deferral of environmental and social requirements has been granted to this project and the World Bank has prepared, as required under this deferral, the SAP. The SAP is guided by the dual objective of ensuring that there is a road map for safeguards compliance during project implementation, and for providing clear guidance on the types of actions and instruments required to facilitate speedy implementation of emergency services. It provides a time-bound plan setting forth the steps and the sequential planning and coordination for project activities, and the preparation of relevant safeguards instruments by the Government to ensure compliance with World Bank safeguard policies.

12. The plan identifies relevant environmental and social issues and risks related to environmental safeguards (OP/BP 4.01 Environmental Assessment, OP/BP 4.04 Natural Habitats, and OP/BP 4.09 Pest



Management); Physical Cultural Resources (OP/BP 4.11); and Involuntary Resettlement (OP/BP 4.12). It provides guidance for the development of the appropriate Environmental and Social Assessment instruments, i. e., ESMPs, ESIAAs, and RAPs.

Project Location and Salient Environmental and Social Characteristics

13. The project is located in Sint Maarten and at the time of appraisal, the combination of detailed activities and locations were not fully defined. In general, however, the major areas could be preliminarily identified. In particular, debris will be removed from sites throughout the island, and vessels will be salvaged from the Simpson Bay lagoon. A portion of Simpson Bay Lagoon has been classified as a Ramsar Site and the bay is an international waterway shared with the Collectivity of Saint Martin (Republic of France). The Pond Island, which is surrounded by water, is receiving debris and includes the site of the temporary hurricane debris storage and the municipal waste disposal site. There is a small informal settlement adjacent to the site. Some residents benefit from informal recycling in the municipal waste disposal site and are being directly affected by the poor air quality from the recurrent fires. The Pond Island also hosts government offices and private companies and is near Philipsburg, which is the capital of Sint Maarten and contains the port that receives cruise ships.

Alternatives considered for fire suppression activity

14. Because of the unusual nature and complexity of addressing the risks of fire at the Pond Island Sites, during preparation several options were considered for to address these subsurface fires using expert advice and experience from similar sites in the World:

15. All options considered include investments in debris collection and processing to divert debris from the temporary disposal site; process as much debris as is economically and technically possible, and dispose the remainder in the waste disposal site, along with continued disposal of domestic and commercial waste in the municipal disposal site.

(i) Do nothing: This alternative involves continued status quo management of the disposal site.

Fire risks: Continued surface fires with a lower risk and frequency due to lower quantity of debris. Risks to community and workers of smoke exposure remains high; fire related odor remains on island; other risks of slope collapse or sink holes on site remain.

Disposal site capacity: Relative to other options, the disposal site's capacity could be extended due to the reduction of waste from fires. This however, may be offset by the lack of compaction of waste.

Environmentally sound closure: Closure would not be possible until the fire extinguishes itself which would take years and perhaps decades after waste is no longer accepted.

Costs: very low

(ii) Increase capacity to respond to surface fires: This would focus on reducing the risk of surface fires and flare ups by providing additional capacity (trucks, foam and other resources) to the fire



department and improved operational, fire risk reduction and emergency procedures for VROMI and the landfill operator. Additionally, this option would include the use of personal protective equipment for the workers on or near the site.

Fire risks: Surface fires risk and frequency are lower due to measures taken and due to lower quantity of debris. Risks related to smoke exposure and direct physical fire risks and tourism related to surface fire events much less. Risk to workers and nearby community of smoke exposure remains high; fire related odor remains on island; other risks of slope collapse or sink holes on site remain.

Disposal site capacity: Disposal site capacity will be extended via compaction of waste. Would not benefit from the volume reduction of the surface fires relative to the do-nothing option.

Environmentally sound closure: Closure would not be possible until the fire extinguishes itself which would take years and perhaps decades after waste is no longer accepted.

Costs: low

(iii) Use passive techniques to suppress underground fires: This process involves injection of carbon dioxide and/or other inert gases to reduce the oxygen and displace methane gases which are contributing ingredients to the fire. This would be a continuous process through closure and would be accompanied by improved operation of the landfill and limited recontouring. This passive technique is not a proven suppression tactic and has had limited success. Additionally, the cost to manufacture or transport the necessary volume of inert gas would be very high.

Fire risks: Surface fire risks would reduce while underground fires would be less extensive and intense but would likely not be eliminated. Risks related to smoke exposure and direct physical fire risks and tourism related to surface fire events would be much less. Risk to workers and nearby community of smoke exposure, fire related odor; other risks of slope collapse or sink holes on site would be lower but would remain.

Disposal site capacity: Disposal site capacity will be extended via compaction of waste. Would not benefit from the volume reduction of the surface fires relative to the do-nothing option.

Environmentally sound closure: Closure would not be possible until the fire extinguishes itself which would take less time than the previous options but may take years after waste is no longer accepted.

Costs: very high

(iv) Undertaking a fire fighting operation to extinguish the fires: This option involves employing several fire-fighting techniques as appropriate (application of foam, digging and application of foam; burning out areas; separation and isolation of fire and application of water and foam) until the fire is fully extinguished and then after the fire compacting and recontouring, accompanied by better operation.



Fire risks: Surface fire risks would be very low while underground fires would be eliminated. Risks related to smoke exposure and direct physical fire risks and tourism related to surface fire events would be eliminated. Risk to workers and nearby community of smoke exposure, fire related odor; other risks of slope collapse or sink holes on site would be eliminated. However, risks such as smoke exposure and risk of collapses are likely to be enhanced during the firefighting operations.

Disposal site capacity: Disposal site capacity will be extended via compaction of waste. Would not benefit from the volume reduction of the surface fires relative to the do-nothing option.

Environmentally sound closure: Closure would be possible immediately after waste is no longer accepted.

Costs: high

16. The option chosen was a combination of options (ii) and (iv). Option (ii) would be implemented in the short term while the firefighting firm and operation is being organized under Option (iv). This option would minimize potential impacts of the fire and allow for environmentally sound closure in a timely manner. It would provide compaction that would help extend the life of the disposal site.

Environmental Category

17. The project is rated Category A due to the risks associated with the activities at the temporary debris storage site and the municipal waste disposal site. These risks are related to the fire suppression activities for subsurface fires due to the complexity of the task, possible air quality impacts, and worker and community health and safety issues in the context of undertaking this activity.

OP 4.01 - Environmental Assessment

18. **Environmental impact.** The project will result in overall positive environmental benefits, as it will properly manage debris, reduce health risks due to mosquito vectors, and improve aesthetics and environmental quality. It will also reduce risks associated with current debris management practices, including improved occupational health and safety, and reduction of risks related to fires at the municipal waste disposal site and the temporary debris storage site. The long-term impacts from the project are of a positive nature, as it will eliminate the risks associated with reduced air quality and the long-term presence of debris. However, some impacts and risks may result from the types of activities to be implemented under the project that will need assessment and management. These include:

- **Debris collection and clearance.** Debris collection has potential negative occupational health and safety impacts, potential negative impacts on traffic, and negative environmental impacts related to the handling of small amounts of hazardous waste.
- **Improvements in the municipal waste disposal site.** The municipal waste disposal site is an existing facility that will need improved environmental and social standards mainly with



regard to fire control, recontouring, and stabilizing the landfill slopes; upgrading the infrastructure; improving operational practices; and developing a plan for closure. Current practices pose an environmental threat to health and human safety, and lead to exposure to air pollution from the burning waste. In addition, landfill workers who handle waste are constantly exposed to risks other than air pollution (exposure to vectors including rodents, flies, and sharps). The project aims to separate the waste and quell the fires, effectively reducing air pollution and other risks, thus improving environmental outcomes.

- **Fire suppression.** This activity has inherent safety risks and environmental risks that need management. These relate to air quality, occupational health and safety, slope stability risk, and contamination from fire-fighting foams and application of water and soil. One community that lives adjacent to the landfill may be impacted by some of these activities (fire suppression and upgrading of the disposal site), thus requiring temporary or permanent displacement. According to preliminary assessment conducted during the technical evaluation and analyses, it was determined that a RAP will be needed. Currently, a RAP contract is being mobilized by the IRC.
- **Rehabilitation of the temporary debris storage site.** The temporary debris site will have to be ultimately closed and converted into useful space in an environmentally friendly manner. Both the civil works associated with the closing activities in the temporary debris storage site and the final use of the site can have important environmental impacts that the project needs to assess, minimize, and mitigate as part of project design.
- **Debris processing.** There are occupational health and safety risks to both workers and the community. The most common potential environmental risks and impacts that will need to be mitigated are associated with living near working sites and include air emissions; pollutant emissions to surface and groundwater; accumulation of hazardous substances in the soil; visual intrusion on landscapes; contamination and accumulation of toxic substances in the food chain, and more broadly air pollutants; spillage of hazardous substances; and spread of vector diseases, nuisance from odors, and increased traffic in surrounding communities. Some components (for example, potentially electronics or fiberglass) may need processing through private companies. Any processing by private companies or facilities (for example, electronic components that cannot be reused) either in Sint Maarten or abroad would have to meet environmental and social standards which would be included in the bidding documents and contracts.
- **Vessel recovery and salvaging.** The project will recover and salvage the recreational boats (sailboats and yachts) and small commercial vessels (barges) in Simpson Bay. The potential environmental impacts are similar to that of debris processing. Removal and decommissioning will also have risks associated with managing oil and gasoline removal from vessels as part of the process. The project will use standard procedures for such removal and handling.
- **Civil works.** Common impacts associated with small civil works construction and rehabilitation of include: (i) increased level of dust, noise, and vibration; (ii) pollution risks; and (iii) health and safety.



19. **Social impacts.** The project will result in overall social benefits not only to the community living around the landfill but to the entire island, as it will properly manage debris, reduce health risks due to recurrent fires and vector-borne diseases, and generally improve aesthetics and environmental quality. It will also reduce risks associated with current debris management practices through improved occupational health and safety. However, Sub-component 1. (b) (Improvements at the municipal waste disposal site and the temporary debris storage site, and the fire suppression activities) may require temporary or permanent resettlement to ensure the safety of persons/communities residing near the disposal site and/or securing livelihoods from the site during firefighting and in the longer run. There is a community of 100 to 300 household residing near the disposal site, including waste pickers. A RAP will be developed as necessary to deal with the loss of livelihoods and any temporary or permanent displacement. Additionally, the risks associated with exposure to the recurrent fire and/or the fire suppression activity may require moving households and businesses in the proximity of the municipal waste disposal site either temporarily or permanently.

20. There are an estimated 100 to 300 households and businesses living near the municipal disposal site. A preliminary investigation indicated that at least some people living adjacent to the disposal site have access to government services and derive a portion of their income from informal recycling.

OP 4.04 - Natural Habitats

21. This policy is triggered because some of the debris removal is in Simpson Bay which includes a Ramsar Site. Some vessels have already been removed from the Bay, but others remain to be salvaged. The ESMP will assess any negative impacts and manage associated risks related to impacts on the natural habitat.

OP 4.09 - Pest Management

22. This policy on pest management is triggered as the management municipal waste disposal site may require managing pests (e. g.' flies, roaches, rodents, and mosquitos at the collection sites). The project will also support education of the population and removal of debris that can contribute to mosquito breeding grounds, as part of the integrated pest management approach for these vectors. A Pest Management Plan will be prepared along with the other safeguard documents. The Plan will be completed and cleared by the Bank before the start of implementation of the relevant activities.

OP 4.11 - Physical Cultural Resources

23. The Physical Cultural Resources policy is triggered because the debris cleanup process could unearth items of cultural value. In addition, cleanup activities may involve work in and around buildings of cultural significance (e. g, churches). The ESMPs will contain procedures to address chance finds of items of cultural significance.

OP 4.12 - Involuntary Resettlement

24. The potential for temporary and/or permanent displacement of households under the project triggers OP 4.12. Currently there is no demarcation of the land to be used for project activities (e. g., the activities at the temporary debris storage and the municipal waste disposal sites, the vessel salvaging area,



and the area for debris processing and recycling). However, the current project activities require either a temporary or permanent displacement of households in the vicinity without land acquisition (e.g., to avoid accidents and environmental health risks from fire suppression activities). Permanent displacement of households may also be needed. The precise impacts, including the number of households and businesses affected and any loss of livelihoods, will not be known until the boundaries and the technical approach to the project activities are fully known during implementation. To assess the impacts and risks, the project will conduct an ESIA to determine the number of households and businesses that may have to be displaced and relocated either temporarily or permanently, including the loss of livelihoods for the community in the proximity of the municipal disposal site. Any temporary or permanent displacement will require a Resettlement Action Plan, outlining mitigation and compensation measures as applicable per World Bank Policy.

OP 7.50 - Projects on International Waterways

25. This policy is triggered as vessel recovery and salvaging will occur in the Simpson Bay lagoon, which is a body of water shared with the Collectivity of Saint Martin, which is a part of France. The Republic of France has been notified as required under OP 7.50, but no response was received during the prescribed notification period. The proposed activities are neither expected to cause appreciable harm to the interests of the Republic of France, nor are they expected to be appreciably harmed by the Republic of France's possible use of Simpson Bay.

OP 4.10 - Indigenous Peoples

26. This policy is not triggered given the population pattern in Sint Maarten.

OP 7.60 - Projects in Disputed Areas

27. This policy is not triggered because the project will not work in areas that are under dispute. One inland bay (Oyster Pond) is under dispute and has been excluded from the project.

OP/BP 4.03 - Performance Standards for Private Sector Activities

28. The policy on Performance Standards for Private Sector Activities does not apply, as project activities will not be led by the private sector. However, private companies contracted for project activities (including fire suppression, the collection of the debris, vessel recovery and salvaging, the operation of the municipal waste disposal site, and debris processing) will have to follow environmental management plans according to OP 4.01.

Measures to Address Impacts of Labor Influx and Labor, Health, and Safety

29. Due to the reduction in tourism activities, Hurricane Irma has exacerbated the already high levels of youth unemployment in Sint Maarten (assessed to be 25 percent in 2017). At the same time, there are not enough skilled construction workers to satisfy the demand in the sector. It is not clear how many workers have already been brought to Sint Maarten by contractors working for the private sector on repair work and/or the demolition and reconstruction of hotels and larger private homes. Although the Government would like to offer as much work as possible to local contractors, the Project will likely include



one or more international tenders and will almost certainly have to bring some specialist/experienced workers from abroad.

30. Three issues need to be considered in this regard: workers brought to Sint Maarten for this project receive fair treatment and are offered acceptable living and working conditions and the influx of workers needs to be managed in a way that avoids: (i) social conflicts; (ii) negative impacts on community health; and (iii) the risk of gender-based violence. Some basic requirements must be incorporated in the international requests for tenders and contracts. These issues will be included in the ESMPs and related bidding documents and contractual obligations.

Measures to Safeguard Workers

31. Issues relating to the safeguard of workers include:

- **Health and safety in the workplace.** Contractors will be required to follow internationally accepted practices in relation to health and safety in the workplace. This would include the provision for—and the requirement for workers to use—appropriate personal protective equipment. It would also include induction and follow-up training on health and safety, regular monitoring (by health and safety specialists on larger contracts), and procedures for incident/accident reporting. This is particularly important because the project involves some potentially hazardous activities, for example, fire suppression, demolition of structures that have suffered hurricane damage, management of hurricane debris, and measures to reorganize the existing waste disposal site and the temporary debris storage site.
- **Disaster preparedness.** Employers will be required to develop procedures to address the risk of further natural disasters (hurricanes and earthquakes) and fires (especially for workers at the disposal site). They must ensure that workers will have access to hurricane shelters during and outside working hours. Workers must be familiarized with the emergency procedures during induction and as part of regular health and safety follow-up sessions.
- **Accommodation.** Because of the damage caused by Hurricane Irma, there is a shortage of affordable accommodation on Sint Maarten. Employers will be asked to arrange suitable accommodation for workers coming from outside Sint Maarten. This could take the form of work camps or arrangements made with hotels/guest houses. The accommodation must provide workers with adequate toilet and shower facilities, beds, and space for their personal effects.
- **Health and life insurance.** Because public health services in Sint Maarten are limited (all doctors work privately), employers should either provide health insurance or make appropriate arrangements for expatriate workers to receive medical attention and, if necessary, repatriation in case of sickness, injury, or death. Locally hired workers must also be covered by health insurance through the national program or other health insurance scheme.
- **Transport.** Workers must be provided with return tickets to ensure that they can return to



the place from which they were hired.

Measures to Safeguard Community Health and Safety

- **Risks to public health.** To avoid the risk of workers introducing communicable or vector-borne diseases, employers must ensure that workers are vaccinated and screened for communicable diseases. This could cover tuberculosis and sexually transmitted infections, and could include screening for vector-borne diseases, such as dengue, chikungunya, zika virus, and malaria. Workers could also be screened for illicit drug use.
- **Risk of accidents to the public.** This would cover the risk of traffic accidents and accidents involving machinery, especially in areas open to the public. Vehicles must be properly maintained, with drivers obliged to respect speed limits and drive courteously. Driving or operating machinery under the influence of alcohol or drugs or use of mobile phones/texting while driving or operating machinery, should be strictly prohibited. It may be necessary to restrict or control access to areas where machinery is being operated.
- **Risks of conflicts and gender-based violence.** Sint Maarten is a country that depends on tourism. Moreover, many of the people living in Sint Maarten have come from abroad. The sex industry is legalized and regulated, and the bars, brothels, and casinos are prepared for drinking of alcohol and sometimes unruly clientele. However, employers should require workers to abide by a Code of Conduct that would be explained during induction and reinforced by regular health and safety training. This would cover respect for local people; would prohibit the possession or carrying of firearms, knives, or other weapons; would strictly prohibit the use or possession of drugs and alcohol in the workplace; and would convey zero tolerance for gender-based violence and engagement with minors. The relevant clauses and requirements for mitigating the above risks will be included in the contracts for the contractor.

Institutional Responsibilities

32. The IRC/NRPB will be responsible for implementation of the SAP and the included safeguard instruments, during procurement and contract execution. They will collaborate with VROMI and the VSA in providing technical oversight, including technical review of the documents and supervision. As part of preparation, an assessment of their capacity was undertaken. As a new institution, they have no experience with World Bank policies. A staffing plan has been developed for the IRC, including safeguards specialists, and training will be provided for them on World Bank safeguards. As this capacity will be built over time, for the purposes of the SAP all documents will be reviewed for no-objection by the World Bank.

Instruments

33. Safeguards instruments will be prepared to identify potential social and environmental issues and develop mechanisms to avoid, minimize, and mitigate impacts in compliance with the relevant Government of Sint Maarten and World Bank policy requirements. ESIA's, ESMP's, and RAP's will follow World Bank policies and will be subject to review by the World Bank.



34. **For environmental safeguards, the following instruments will be developed by the client:**

- (a) An ESIA to assess the environmental pollutants and risks associated with fire suppression.
- (b) An ESIA to assess the nature of the air, water, and other pollution at the temporary disposal site and the municipal waste disposal site and the impacts of planned improvements at the sites including the recontouring, upgrading and reorganization; improved operation, including management of pest control through the Pest Management Plan; and closure plan for the municipal waste disposal site.
- (c) ESMPs will be developed to manage the risks associated with specific project activities include:
 - (i) Recovery of recreational boats (yachts and sailboats) and small commercial vessels (barges) in Simpson Bay (addressing impacts that include health and safety, removal and management of oils and gasoline, and dust and waste management).
 - (ii) Creation of recreational diving and/or fish breeding sites in the ocean and debris collection, clearance, and storage (addressing issues including appropriate siting).
 - (iii) Processing of the debris to maximize ecological benefits and avoid contamination.
- (d) A general ESMP to manage risks related to general works (including air and water pollution risks, health and safety issues, worker influx issues and spill management) that do not warrant a full ESMP (for example, car removal and salvaging - electronics are stripped and largely reused - soil transport, labor-intensive debris clearance, and small works).

35. All the instruments will be prepared following the World Bank Group Environmental, Health, and Safety General Guidelines and the World Bank Group Environmental, Health, and Safety Industry Sector Guidelines for Waste Management Facilities.

36. **For social safeguards**, the ESIA (for the fire suppression activities, and the upgrading, operation, and the closure plan of the municipal waste disposal site and the temporary debris storage site under Sub-component 1. (b) of the project) will determine the households and businesses that will need to be temporarily or permanently resettled and a RAP (s) will be developed in parallel. Any impacts on livelihoods will be assessed as part of the ESIA of the particular activities and will be addressed as part of any associated ESMP. To gain valuable time for project implementation, the ESIA and the RAP for the fire suppression activity will be initiated at the earliest while the project is being prepared. The ESIA and potentially the associated RAP for the upgrading, operation, and closure of the disposal sites will be conducted immediately after the project approval. The timelines for the preparation, consultation, and disclosure of the ESIA are provided in Table 4.2 of the Safeguards Action Plan in Annex 4. As part of the SAP, the IRC will be staffed with the necessary specialists and will contract the necessary work. Considering the limited capacity of the client, close support from the Bank team is expected on meeting the safeguards requirements.

Consultation and Disclosure



37. The IRC will be the main vehicle for citizen engagement and will provide the public information on the project and implementation requirements and arrangements. It will also undertake communications to property owners (for vessel salvaging, container and vehicle debris management, and for debris clearance on private properties) and to local communities (for Pond Island activities and other activities that may have a nearby community). All documents will be consulted and publicly disclosed in accordance with World Bank policies.

Table 4.1: Environmental and Social Instruments

Sub-component	Subcomponent Activities	Instrument(s)
1.(a) Collection of debris	Collection of debris, including the use of procedures for separation of debris by materials for easier processing and treatment	General ESMP
1.(b) <i>Reducing risks of operation, fire suppression, reorganization, rehabilitation, and upgrading of debris storage and municipal disposal sites</i>	(ii) Carrying out of fire suppression activities at the disposal and debris storage sites	ESIA, ESMP and RAP covering the emergency response related to extinguishing of the fires at the municipal disposal and temporary debris storage sites
	(iii) Recontouring and reorganization of the layout of the disposal site to allow for better separation and recycling, and improve operations	ESIA, ESMP and RAP (as necessary) covering the improvement (recontouring, upgrading, improved operation, and closure) of the municipal waste disposal site and rehabilitation of the temporary debris storage site
	(iv) Provision of Operating Costs related to the management of the disposal site under improved operational procedures	
	(vi) rehabilitation, restoration, and/or closure of the temporary Irma debris storage site	
1.(c) Debris processing and disposal	(i) Provision of equipment and civil works for debris processing and of service contracts for recycling, transport, reuse and repurposing, treatment, destruction, and/or disposal of debris materials	ESMP for works related to the processing of debris and RAP (as necessary)
	(ii) Contract for creation of artificial reef or fishing grounds	ESMP
1.(d) Vessel salvaging	Provision of assistance for the removal and salvaging (including breakdown, treatment, recycling, and disposal) of vessels in Simpson Bay and Simpson Bay Lagoon.	ESMP (using standard procedures applicable to recreational vessels and small barges found in bay)
1.(e) Debris clearance	(i) Removal of debris from public spaces and private properties to curbside	General ESMP Pest Management Plan for vector-related activities
	(ii) Collection of debris for vector control	
	(iii) Assessment, monitoring, and supervision for debris-related vector control	
	(iv) Beautification of public areas including debris removal and landscaping	



Grievance Redress Mechanism

38. A Grievance and Complaints Redress Mechanism will be prepared and the procedures and processes for submitting complaints will be communicated to the public and a Grievance Complaints Logging System (GCLS) will be put in place to receive and handle complaints.

Gender-Based Violence and Worker Influx

39. These issues will be included in the safeguards instruments based on the most recent guidance from the World Bank. Potential influx and impacts from retrenchment after finalization of activities, as well as issues resulting from interaction with the communities, will be reviewed. The World Bank guidance on gender-based violence will be used as a basis for this work, and all workers will be expected to comply with the World Bank Group Environmental Health and Safety Guidelines.

Clearance of Safeguards Documents

40. All safeguards instruments will require no-objection from the World Bank. **For the fire suppression related activities under Sub-component 1. (b) (ii)**, before the bidding process may start, the Bank will require the Recipient to furnish a **terms of reference (ToR) for the ESIA that includes ESMP**, that has been publicly consulted on, and is acceptable to, and cleared by the World Bank. These terms of reference shall include all key elements so that the bidders will have sufficient information to understand the risks and potential ESMP requirements. The preparation of the ESIA and ESMP and consultation on their drafts will be done once the ESIA contractor and fire suppression contractors are both mobilized, to take advantage of the expertise of both contractors and to more accurately assess the conditions of the fire at a time the activities will commence. The Recipient will include the final ESIA and ESMP in the Project Operations Manual and will include the obligation to abide by the terms of the final ESIA and ESMP in the awarded contracts. Once the documents (i.e. ESIA, ESMP, and RAP) are finalized and made public by the Recipient, and cleared by the World Bank, and the actual resettlement is completed, the work will be allowed to begin. For the activities that are not related to fire suppression, the bidding process will only start once the correspondent safeguard instruments are finalized.

Timeline for Implementation

41. All safeguards documents are expected to be completed within eight (8) months of approval of the grant.



Table 4.2: Environmental and Social Action Plan

No	Action	Responsibility	Due Date ⁷
1.	ESIA and ESMP under Component 1 (b) (ii)		
1.1	Preparation and Consultation of ToR Preparation of draft ToR Consultation on draft ToR Submission to the World Bank for review and approval	IRC/NRPB, World Bank	30 days from the effective date of the grant agreement
1.2	Preparation and disclosure on the IRC web page of the draft ESIA and ESMP	IRC/NRPB	120 days after the World Bank's no objection to the ToR
1.3	<ul style="list-style-type: none"> • Complete public consultation of the draft ESIA and ESMP • Consulted draft ESIA and ESMP found acceptable and cleared by the World Bank. 	IRC/NRPB, World Bank	30 days following the date of public disclosure of the draft ESIA and draft ESMP
1.4	Preparation and disclosure on the IRC web page of the final ESIA and ESMP (incorporating comments from the disclosure and consultation), acceptable to the World Bank	IRC/NRPB	240 days from the effective date of the grant agreement
2.	ESIA and ESMP under Component 1 (b) (iii)		
2.1	Preparation and Consultation of ToR Preparation of draft ToR Consultation on draft ToR Submission to the World Bank for review and approval	IRC/NRPB, World Bank	90 days from the effective date of the grant agreement
2.2	Preparation and disclosure on the IRC web page of the draft ESIA and ESMP	IRC/NRPB	120 days after the World Bank's no objection to the ToR
2.3	<ul style="list-style-type: none"> • Complete public consultation of the draft ESIA and ESMP • Consulted draft ESIA and ESMP found acceptable and cleared by the World Bank. 	IRC/NRPB, World Bank	30 days following the date of public disclosure of the draft ESIA and draft ESMP
2.4	Preparation and disclosure on the IRC web page of the final ESIA and ESMP (incorporating comments from the disclosure and consultation), acceptable to the World Bank	IRC/NRPB	240 days from the effective date of the grant agreement
3.	ESMPs under the Project, other than the ESMPs under Component 1 (b) (ii) and Component 1 (b) (iii),		
3.1	Preparation and public disclosure on the IPRC web page of the draft ESMPs	IRC/NRPB	60 days from the effective date of the grant agreement
3.2	Public consultation of the draft ESMPs	IRC/NRPB, World Bank	30 days following the public disclosure
3.3	Preparation and public disclosure on the IRC web page of the final ESMPs (incorporating comments from the disclosure and consultation), acceptable to the World Bank	IRC /NRPB	240 days after effective date of the grant agreement

⁷ The Recipient is expected to achieve the actions no later than the due dates specified.



No	Action	Responsibility	Due Date ⁷
4.	Resettlement Action Plans (RAPs) under Component 1 (b) (ii)		
4.1	carrying out public consultations and submitting a draft RAP to the World Bank for review and no objection	IRC/NRPB	120 days from the effective date of the grant agreement
4.2	finalizing and publicly disclosing the final RAP	IRC/NRPB	5 days following the World Bank's no objection to the draft RAP
5.	RAP(s) for the Project, other than that for Component 1 (b) (ii)	IRC/NRPB	Will be prepared as needed
6.	Complaint and Grievance Redress Mechanism		
	Prepare a GRM (a) to be sent to the World Bank for review and approval; (b) to be disclosed; and (c) to be incorporated in the POM.	IRC/NRPB	Within 30 days following project approval



ANNEX 5: PROJECT MAP

