



1. Project Data

Project ID P167974	Project Name Sint Maarten Airport Reconstruction	
Country St Maarten	Practice Area(Lead) Transport	
L/C/TF Number(s) WBTF-B0760,WBTF-B7571	Closing Date (Original) 31-Dec-2023	Total Project Cost (USD) 81,868,723.69
Bank Approval Date 18-Sep-2019	Closing Date (Actual) 30-Jun-2025	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	0.00	92,000,000.00
Revised Commitment	0.00	81,868,723.69
Actual	0.00	81,868,723.69

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2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO) as stated in the Grant Agreement (Schedule 1, page 8) and in the Project Appraisal Document (PAD, page 13) is:

"To restore the passenger capacity of Princess Juliana International Airport (PJIA) to pre-Hurricane Irma levels with improved resilience towards hurricanes".



For this Implementation Completion Report Review (ICRR), the PDO is parsed as follows:

PDO 1. To restore the passenger capacity of PJIA to pre-Hurricane Irma levels; and

PDO 2. To improve resilience towards hurricanes.

The PDO was not changed with the Additional Financing (AF) for the project.

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

There were four components.

1. Reconstruction of the PJIA terminal facilities. The estimated cost at appraisal was US\$107.00 million. The actual cost was US\$137.60 million. This component planned to reconstruct the terminal facilities to restore airport functions and improve its resilience to hurricanes. Activities in this component included "Package 2" works of terminal reconstruction, such as restoring facility and equipment, reinstalling passenger boarding bridges, entrance doors, dry walls, furniture and counters, electrical, Information Technology (IT) baggage handling systems and installing security and firefighting facilities.

2. Capacity building of and project management by PJIA Operating Company (PJIAE). The estimated cost at appraisal was US\$0.50 million. The actual cost was US\$2.65 million. This component planned to finance project management costs and capacity building of PJIAE. Activities in this component included staffing for project management, monitoring and evaluation, and environmental, social and fiduciary aspects. Capacity building activities were to focus on improving airport resilience and air traffic safety, with specific activities to be defined based on a needs-assessment during implementation. This component also financed training and operating costs.

3. Capacity building of and project management by the Government of Sint Maarten (GoSM). The estimated cost at appraisal was US\$0.50 million. The actual cost was US\$0.43 million. This component planned to support the GoSM on management and capacity building in governance. The component also financed training and operating costs required for these activities.

4. Support of PJIAE operations. The estimated cost at approval was US\$21.00 million. The actual cost was US\$10.90 million. This component planned to provide liquidity support to selected PJIAE operating expenditures so that the airport could continue to be operational during reconstruction.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates



Project cost. The estimated cost at appraisal was US\$129.00 million. The actual cost was US\$151.62 million.

Project financing. The project was a blended operation with financing from a Trust Fund (TF) administered by the Bank, co financing from the European Investment Bank and counterpart funding. The original project was financed by a Trust Fund of US\$72.00 million. AF of US\$20.00 million was processed on May 30, 2023. With this, the total TF funding was US\$92.00 million. US\$81.86 million was disbursed. US\$10.10 million of the grant was returned to the TF 2020-2021 at government request, as following the recovery from the COVID-19 pandemic, no further support was needed. There was co-financing of US\$50.00 million from the European Investment Bank. US\$49.94 million of this was disbursed.

Counterpart funding. Counterpart funding of US\$7.00 million was planned at appraisal. Borrower contribution was significantly more during implementation at US\$19.80 million.

Dates. The project was approved on September 18, 2019, became effective on April 7, 2020, and scheduled to close on December 31, 2022. The project with AF closed on June 30, 2025, which was 30 months after the original closing date.

Changes. AF was processed on May 2023 to cover the cost overruns resulting from reconstruction cost increases and global surges in logistics costs in the wake of the COVID-19 pandemic. The closing date of the project was extended by a year from December 31, 2022, to December 31, 2023.

The closing date was extended by 18 months from December 31, 2023 to June 30, 2025 **through a level 2 restructuring in July 7, 2023**, for factors such as: (i) delayed release of insurance proceeds to PJIAE in April 2020; (ii) procurement delays in the initial years; (iii) the technical complexities of a brownfield project of reconstructing a terminal and (iv) the finding of unanticipated extensive damage to the fire-retardant system, which had to be remedied.

Split rating. The PDO and the project scope were unchanged with the AF. The AF was intended to cover cost increases (within the existing scope of the project). Therefore, this review does not use the split rating methodology to determine the outcome rating.

3. Relevance of Objectives

Rationale

Country context. Sint Maarten is a high-income constituent country of the Kingdom of Netherlands, with a population of about 40,000 - highest in the Caribbean. The tourism sector generated 45% of the Gross Domestic Product (GDP) and 73% of foreign exchange in 2016. Sint Maarten is highly vulnerable to climate and natural hazards due to its location within the hurricane belt. Before appraisal, on September 6, 2017, Sint Maarten was rebuilding from damage caused by Hurricane Irma, a Category 5 hurricane that ravaged the island, striking a drastic blow to the economy.

Sector context. The Princess Juliana International Airport (PJIA) is the island's international airport and a critical infrastructure for the tourism industry and the economy. PJIA sustained severe infrastructure damages due to the Hurricane Irma. The winds of the Hurricane blew the airport's passenger boarding



bridges, terminal entrance doors and roof. Although the airport operator - the PJIA Operating Company (PJIAE) quickly restored operations for commercial flights, the terminal passenger handling capacity and systems had to be restored for full recovery of air passenger traffic.

Government strategy at appraisal. In 2018, Sint Maarten developed a National Recovery and Resilience Plan (NRRP). The plan prioritized reconstruction of critical infrastructure such as the airport. The NRRP recommended rebuilding the airport to higher standards to ensure resilience. When this operation was under preparation, the Government also adopted an Action Plan to improve corporate governance of the airport's management.

Current government strategy. The PDO is highly relevant to the government strategy articulated in the strategic framework for 2025-2028. The Focus Area one of the framework reiterated the need for restoring PJIA to pre-hurricane levels, along with its enhanced resilience, as crucial for promoting sustainable recovery. Within this focus area, the main objective was restoring and enhancing the resilience of the airport's passenger terminal.

World Bank (WB) Strategy. In the absence of a Country Partnership Framework, the strategic framework of the Sint Maarten Reconstruction and Resilience Trust Fund (TF), helped guide WB's support for Sint Maarten, which further guided this project. Among the priorities was immediate reconstruction of the airport and rebuilding the airport to higher standards to ensure resilience.

Relevance of PDO. The PDO of restoring the passenger terminal capacity of the PJIA and enhancing its resilience was highly relevant in the country context, to the government strategy and the Bank support for the government strategy. The PDO was directly aligned with the strategic framework of the Sint Maarten Reconstruction and Resilience TF. Alongside this operation, the WB was also providing technical assistance (TA) to support the implementation of the Government Action Plan to improve corporate governance of the airport management.

As the airport was crucial for the tourism industry and jobs in the country and its reconstruction was essential for the higher level of objective of achieving sustainable economic recovery, the relevance of the PDO is rated High.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

PDO 1. To restore the passenger capacity of PJIA to pre-Hurricane Irma levels.

Rationale



Theory of change. The outputs of airport infrastructure investments such as reconstruction of PJIA (through installing equipment including furniture/counters, baggage handling and electrical and Information Technology (IT) systems, were likely to help in restoring the passenger capacity of the airport to pre-Hurricane Irma levels. The causal links between project activities, outputs and intended outcomes were logical. The outcomes were monitorable. The theory of change explicitly assumes that the airport continues to be functional during reconstruction.

Outputs.

- 100% of package 2 terminal reconstruction works were completed as targeted. The works included: (i) replacement of the Passenger Boarding Bridges with improved corrosion resistance; (ii) installation of structurally improved entrance doors; and (iii) replacement of the baggage handling system and exterior glazing panels. The restoration of the terminal's passenger handling capacity was achieved as targeted through a phased approach to minimize disruption to ongoing operations.

Outcomes. The outputs were expected to restore the passenger handling capacity of the terminal to pre-Hurricane Irma levels.

- The passenger handling capacity of the terminal increased from 1,000,000 passengers per year at the baseline to 2,500,000 passengers per year (the terminal's original pre-Irma design capacity) in November 2024. This capacity provided the headroom needed to accommodate five to ten years of demand growth without major additional works.

Efficacy of this PDO is rated as High, as the intended outcome was fully realized.

Rating

High

OBJECTIVE 2

Objective

PDO 2. To improve resilience towards hurricanes.

Rationale

Theory of change. The outputs such as installing resilient jet bridges and entrance doors and institutional strengthening activities such as training PJIAE staff and government professionals on governance, air traffic safety and airport resilience, were likely to help in improving resilience of the airport. The causal links between project activities, outputs and outcomes were logical. The outcomes were monitorable. The theory of change explicitly assumes that: (i) The project management staff are effective in coordinating any interface risks between terminal reconstruction and equipment installations; and (ii) The trained airport staff and government professions are retained long enough to build sustainable institutional capacity.

Outputs.

- Strengthened jet bridges and resilient entrance doors anchored to the foundation with hurricane shutters were installed and the baggage handling system was restored as targeted.



- 165 PJIAE and government officials were trained on the terminal's resilience (on areas such as airport governance and management, emergency response, advanced safety management, far exceeding the target of 50.
- The project provided critical "liquidity support" to PJIAE. This kept PIJAE solvent during the COVID-19 collapse of air traffic, thereby supporting business continuity and job security. This output was not included in the results framework and had no official target.
- PIJAE was able to service its debt to the government to pay back multilateral support. PIJAE also diversified its commercial insurance coverage moving from a single, outdated pre-pandemic structure to a robust three-policy structure, ensuring that the asset is financially protected against future climate shocks. This output was not included in the results framework and had no official target.

Outcomes. The outputs were expected to improve the resilience of the PJIA terminal building to withstand Irma level hurricanes.

- When the project closed, the physical resilience of the terminal was improved to withstand Irma level hurricanes as targeted. The ICR also provided additional evidence beyond the results framework to improve the financial resilience of PIJAE such as PIJAE was able to service its debt to the government to pay back multilateral support, diversify its commercial insurance coverage, provided liquidity support and contribute to the DRF Fund.

Efficacy of the PDO is rated as High, based on the extent to which the outcomes were realized.

Rating
High

OVERALL EFFICACY

Rationale

Overall efficacy is rated as High, given the extent to which the intended outcomes were realized.

Overall Efficacy Rating

High

5. Efficiency

Economic analysis. An economic analysis was conducted at appraisal and at closure for airport infrastructure investments, which accounted for about 95% of the actual cost. The economic analysis estimated the potential



loss in tourism revenues due to the delay in the terminal reconstruction and recovery of passenger demand and the main project benefits were assumed to come removing the terminal's capacity constraints.

The Net Present Value (NPV) at 6% discount rate was estimated at US\$309.00 at appraisal and the ex-ante Economic Internal Rate of Return (EIRR) was 131%. The ex-post assessment demonstrated strong economic justification for the project, with the NPV of US\$200.00 million at 4% discount rate, an ex-post EIRR of 15% and a benefit-cost ratio of 1.53 - meaning that the project generated US\$1.53 in benefits for every dollar invested. The ex-post EIRR was significantly lower than the ex-ante EIRR due to the cost escalation that was covered with the AF for the project. At closing, about US\$10.00 million of the grant was returned at government request.

Administrative and operational issues during preparation and implementation. Project preparation was significantly affected by the extended period taken by the Government to decide on the financing package for terminal reconstruction - over two years elapsed between the September 2017 hurricanes and the December 2019 Grant signing due to a combination of factors including political turmoil, financial challenges within PJIAE and uncertainty about optimal financing strategies.

The actual cost was higher than estimated at appraisal due to factors such as overly optimistic assumptions about using existing materials, systems and equipment to minimize costs during the financial uncertainty following Hurricane Irma, lack of high-quality drawings for the terminal that did not reflect the modifications since the original construction and subsequent post-hurricane repairs. The underestimation of costs necessitated the AF for the project.

There were time overruns, with the original project closing two and half years behind schedule. This was, however, mainly due to external factors such as disruptions to the global supply caused by the physical restrictions in the wake of the COVID-19 pandemic.

In sum, overall efficiency is rated as substantial, due to minor shortcomings during preparation that negatively affected implementation.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	131.00	95.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	15.00	95.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.



6. Outcome

Relevance of the PDO to the country context, the Government strategy and the Bank strategy is High. Overall efficacy is rated as High, given the extent to which the intended outcomes were realized. Efficiency is rated as substantial, due to the minor shortcomings during preparation that negatively affected implementation. Taking these ratings into account, outcome is rated as Highly Satisfactory.

a. Outcome Rating

Highly Satisfactory

7. Risk to Development Outcome

The risk to the sustainability of the development outcome is rated as low (ICR, para 59). The PJIA terminal was reconstructed under the project to fulfill resilient standards and this resilience is expected to endure beyond project closure. The ICR noted that the upward trend in tourism in Sint Maarten suggests that passenger numbers will not decline in the near future.

Financial sustainability risk. The ICR (para 59) noted that sustaining positive outcomes related to airport operations will require continued adherence to the improved corporate governance practices implemented during the reconstruction period.

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank prepared this operation based on the Bank's global experience with airport projects. The main lessons incorporated at design included: (i) Alongside reconstruction of the passenger terminal building, the design incorporated the principle of "*Building back better*" (that is, ensuring the repaired or replaced assets are more efficient and resilient to future hurricanes); and (ii) ensuring that the airport meets the International Civil Aviation Organization's (ICAO) goal of reducing energy consumption (such as through high performance exterior insulated exteriors and higher efficiency baggage handling equipment).

The Princess Juliana International Airport Operating Company (PJIAE) was overall in charge of implementing the technical aspects of the operation. A dedicated Project Management Unit (PMU) established within PJIAE and staffed with extensive international and local recruitment, was in charge of day-to-day implementation. This arrangement was appropriate as the operation was not undermined by the implementation arrangements made at appraisal.

The Bank identified several risks at appraisal, including High risks with political and governance and weak institutional capacity, and substantial risks with technical design, fiduciary and stakeholder risks. Even with mitigation measures, the overall project risk was rated as High at appraisal (PAD, page 4). The



arrangements made at appraisal for safeguards and fiduciary compliance were appropriate (discussed in section 10).

There was a shortcoming at Quality-at-Entry. The actual cost was much higher than estimated at appraisal due to factors such as overly optimistic assumptions about using existing materials and systems and lack of high-quality drawings for the terminal that did not reflect numerous modifications since the original construction. The underestimation of costs necessitated AF for the project.

Bank performance at Quality-at-Entry is rated as Satisfactory.

Quality-at-Entry Rating Satisfactory

b. Quality of supervision

The Bank conducted twelve supervision missions during the implementation period, implying an average of twice a year, supervision missions. Recognizing Sint Maarten's limited experience with WB procedures, the supervision team provided Hands-on Expanded Implementation Support (HEIS) for ensuring compliance with international standards, while building local capacity through continuous training and mentoring. The project also marketed one of the first uses of the "rated criteria" for the bidding process (discussed in section 10). The supervision team proactively coordinated with the PMU in reviewing monthly progress reports. This resulted in the absence of significant disputes or litigation throughout implementation. The supervision team's reporting of implementation was candid and supplemented by supporting documentation. This transparency made it easy for those not directly involved to understand the project challenges and steps taken to address them. The support provided by the team aided in safeguards and fiduciary compliance (discussed in section 10).

The quality of supervision is rated as Highly Satisfactory.

Quality of Supervision Rating Highly Satisfactory

Overall Bank Performance Rating Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The National Recovery Program Bureau (NRPB) was overall in charge of M&E and reporting on project progress. The results framework was logical and the key outcome indicators were appropriate for monitoring performance (discussed in section four). The key outcome indicators were, however, output-oriented and captured only the civil works activities under component one of the project, leaving out the



role of project management, capacity building and emergency liquidity support in enhancing the resilience of airport operations. However, these important activities were included as intermediate results indicators.

b. M&E Implementation

The ICR (para 45) notes that PJIAE and the task team regularly collected and analyzed Project M&E data and indicators were consistently measured according to the M&E methodology. In 2024, the team also retrofitted the results framework with the WB corporate results indicator on "people that benefit from improved access to sustainable transport infrastructure and services" using annual terminal passenger volumes to report direct beneficiaries.

c. M&E Utilization

The utilization of the M&E system helped in informing implementation progress and decision-making relating to project restructuring and extensions.

Overall M&E is rated as substantial. While the results framework focused primarily on physical progress, the system was robust enough to track the critical path to the PDO.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

Environmental and social safeguards, The environmental and social risks were expected to be moderate at appraisal as (i) The project was expected to recruit environmental and social specialists to ensure that project-related risks are appropriately monitored and mitigated; and (ii) The Bank's works primarily focused on airport renovation works such as plumbing and installing equipment, which were generally perceived to be less risky (PAD, page 21). As the design did not include major structural or construction works, permanent and/or temporary displacement was not expected.

The project complied with the environmental and social requirements (ICR, para 48). The ICR noted that during implementation, PJIAE carried out mold remediation works on the ground floor of the terminal and prepared an Environmental and Social Management Plan (ESMP). PJIAE maintained an environmental and social management specialist as part of PMU throughout the implementation period. The PMU submitted 21 quarterly reports for the project and each report was acceptable to the bank. The project had an exemplary health and safety record, with no major accidents or incidents.



b. Fiduciary Compliance

Fiduciary Management (FM). The financial management responsibilities for components 1, 2 and 4 (totaling US\$128.50 million) were with the PJIAE, and for component three(US\$0.50 million) with the National Recovery Program Bureau (NRPB). The Bank conducted an FM assessment of PJIAE and NRPB). The assessment concluded that the FM arrangements were satisfactory.

The FM performance was rated as satisfactory throughout implementation (ICR, para 52). The project complied with all financial covenants and the WB's operational policies on FM and disbursements. The quarterly unaudited interim financial reports and audited financial statements were submitted in a timely fashion and the audits were unqualified.

Procurement Management. The Bank conducted a procurement assessment of PJIAE at appraisal. The assessment concluded that the procurement arrangements were satisfactory. While neither the PJIAE nor the engineering firm hired to support execution had experience with WB projects, they had experience procuring goods, services for airport rehabilitations and PJIAE had a procurement team with skills and experience for executing the project.

The Project complied with the WB Group procurement policies and procedures and procurement performance was rated as Highly Satisfactory at closure (ICR, para 53). The project introduced innovations that influenced WB's regulations for all international civil works procurements under Investment Project Financing (IPF) The project used a rated criteria approach for major reconstruction works - an approach not yet standardized in WB's procurement regulations. This approach allowed project teams to evaluate bids not just on price, but on quality, innovation, environmental sustainability and social responsibility. This approach ensured that technically sound and experienced contractors were selected, which contributed to the quality delivery of the reconstruction program. The success of this approach in Sint Maarten led the WB to make rated criteria the default standard for major civil works since 2023.

c. Unintended impacts (Positive or Negative)

There were no unintended impacts.

d. Other

Not applicable.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Satisfactory	Highly Satisfactory	
Bank Performance	Highly Satisfactory	Satisfactory	There were minor shortcomings in the Quality-at-Entry.



Quality of M&E	Substantial	Substantial
Quality of ICR	---	High

12. Lessons

The ICRR draws the following main lessons from the experience of implementing this Project, with some adaptation of language.

1. A blended financing package can help in raising the potential for success in overcoming funding shortfalls. This project had a blended funding package with financing from a trust fund administered by the WB, funding from European Investment Bank and counterpart funding. This arrangement proved effective in convening key stakeholders and mobilizing additional financing.

2. A rated criteria for International Civil Works can be useful for ensuring quality of civil works. In complex brownfield environments like an operating airport, lowest-cost selection can often lead to unqualified contractors and disputes. The rated criteria which were used for the first time in this project (which has since become standard WB practice), can better support the selection of a contractor capable of managing complex logistics and safety protocols, particularly when the works require bringing international expertise into a local construction market with limited expertise.

3. "Building back better" principles that go beyond simple restoration to create improvements can help in turning disaster into an opportunity for sustainable development. While reconstruction of a terminal building was a near-term objective in this project, the project helped in enhancing resilience of the terminal resilience that could go beyond the project.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is clear, well-written, concise and adheres to the recommended page length of 15 pages. The theory of change articulated in the text clearly elucidates the logical links between project activities (inputs), outputs and the desired outcomes. It also explicitly states the assumptions underlying the results framework. The additional evidence provided in the text is adequate for assessing project performance. The ICR draws good lessons from implementing the project. Given that airport infrastructure investments form the main components of the project, the ICR could have benefitted from incorporating photographs in an annex. This would have enabled the reader to visualize the changes made under the auspices of the project.

a. Quality of ICR Rating



High