









Project Completion Validation Reports 2025 Compilation

Validation Report Title	Country	Sector
Youth & Community Transformation Project	 Belize	Social Development
GAIA Pavement Rehabilitation & Expansion	 Barbados	Transport
Sixth Power Project	 Belize	Energy
Fourth Road Project (S. Leeward Highway)	 St. Vincent & the Grenadines	Transport
Sugarcane Farmers' Resilience to Hazards	 Belize	Agriculture
Seventh Consolidated Line of Credit	 Belize	Financing



CARIBBEAN DEVELOPMENT BANK



VALIDATION OF PROJECT COMPLETION REPORT

ON

THE YOUTH AND COMMUNITY TRANSFORMATION PROJECT– BELIZE

OFFICE OF INDEPENDENT EVALUATION

December 2025

LOAN NO.: Loan 60/SFR-BZE

Grant GA 43-BZE

PRN NO.: 3718

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Quality Control Reviewers	-	

CURRENCY EQUIVALENT

Dollars (\$) throughout refer to United States dollars (USD) unless otherwise stated.

ABBREVIATIONS

CDB	- Caribbean Development Bank
CRD	- Community Rehabilitation Division
CSP	- Country Strategy Paper
GOBZ	- Government of Belize
GREAT	- Gang Resistance Education and Training Programme
KPI	- Key Performance Indicators
LIRC	- Lake Independence Youth and Community Resource Centre
M&E	- Monitoring and Evaluation
mn	- million
MOE	- Ministry of Education, Youth and Sports
MOHD	- Ministry of Human Development, Social Transformation and Poverty Alleviation
MOHDFIPA	Ministry of Human Development, Families and Indigenous People's Affairs
MOU	- Memoranda of Understanding
NGOs	- Non-Governmental Organisations
NICH	- National Institute of Culture and History
OCR	- Ordinary Capital Resources
p.a.	- per annum
PA	- Participating Agency
PCR	- Project Completion Report
PIU	- Project Implementation Unit
POM	- Programme Operations Manual
PSC	- Project Steering Committee
SFR	- Special Funds Resources
SHIE	- Samuel Haynes Institute of Excellence
TDD	Terminal Disbursement Date
USD	- United States dollars
YCPU	- Yarborough Community Policing Unit
YCT	- Youth and Community Transformation
YFFC	- Youth for the Future Resource Centre
YMCA	- Young Men's Christian Association
YWCA	- Young Women's Christian Association

MEASURES AND EQUIVALENTS

1 metre (m)	=	3.281 feet (ft.)
1 kilometre (km)	=	0.621 mile (mi)
1 square metre (m ²)	=	10.756 square feet (ft ²)
1 square kilometre (km ²)	=	0.386 square mile (mi ²)
1 hectare (ha)	=	2.47 acres (ac)
1 tonne	=	0.98 ton (tn)
1 litre (l)	=	0.22 imperial gallons (ig)
1 cubic metre (m ³)	=	264.172 gallons (gals)
1 millimetre (mm)	=	0.039 inch (in)

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1. BASIC PROJECT DATA SHEET

Project Title:	Youth and Community Transformation Project
Country	Belize
Sector	Social Development, Citizen Security
Loan No.	60/SFR-BZE
Borrower	Government of Belize
Implementing/Executing Agency	Ministry of Human Development Families and Indigenous People's Affairs

<u>Disbursements (\$ mn)</u>	<u>CDB LOAN</u>		
	<u>OCR</u>	<u>SFR</u>	<u>Total</u>
Loan Amount	-	\$5,200,000.00	\$5,200,000.00
Disbursed	-	\$4,370,616.00	\$4,370,616.00
Cancelled		\$829,384.00	\$829,384.00

<u>Project Milestones</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Board Approval	12/12/2012	-	-
Loan Agreement signed	11/09/2013	-	-
Loan Effectiveness ¹	07/05/2015	-	-

<u>CDB Loan</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
First Disbursement Date	June 30, 2013	May 7, 2015	22 months
Terminal Disbursement Date	September 30, 2017	March 31, 2021	42 months
TDD Extensions (number)	-	3	-

<u>Project Cost and Financing (\$ mn)</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (mn)</u>
CDB Loan	5,200,000.00	4,370,616.00	-18%
CDB Grant	105,000.00	105,000.00	0%
Other Loan	-	-	-
Counterpart	2,051,000.00	2,051,000.00	
Total	7,356,000.00		

<u>Terms</u>	<u>Interest Rate</u>	<u>Repayment</u>	<u>Grace Period</u>
CDB Loan	2.5% p.a.	30 years	10 years
Other Loan	-	-	-

<u>Implementation</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Start Date ²	31/03/2013	01/07/2014	16
Completion Date	02/11/2018	01/12/2019	13
Implementation Period (years)	5	8	13

<u>Economic Rate of Return (%)</u>	<u>At Appraisal</u>	<u>PCR</u>	<u>PCVR</u>
Original Loan	16%	Not Applicable	
Additional Loan	Not Applicable	Not Applicable	

¹ Date Conditions to First Disbursement satisfied.

² Implementation begins with satisfaction of conditions precedent

2. PROJECT DESCRIPTION

2.01 The **Youth and Community Transformation (YCT) Project in Belize** was designed to reduce the vulnerability of children and youth to crime and gang involvement in four high-risk divisions of Belize City—Collet, Lake Independence, Pickstock, and Port Loyola. The project aimed to improve citizen and community security through a multi-pronged strategy that expanded access to social services, fostered life and employability skills, and promoted community cohesion through targeted infrastructure and institutional support.

2.02 At the core of the intervention were Transformation Programmes that focused on enhancing basic literacy and numeracy, developing adaptive life skills, strengthening employability prospects for at-risk youth, and supporting community mediation and dialogue. These programmes were structured by age group and delivered through existing community resource centres and a new facility—the Lake Independence Youth and Community Resource Centre (LIRC)—constructed under the project. Subcomponents included early literacy support for parents and young children, after-school and remedial education, life skills and violence-prevention training, and community activities such as sports and expressive arts to promote peaceful engagement.

2.03 Complementing these programmes, the project financed Community Infrastructure Development, including the construction of the LIRC on a government-owned site, the rehabilitation of recreational spaces, and basic civil works such as road access and fencing. These investments aimed to create safe, youth-friendly spaces that supported social inclusion and community interaction.

2.04 To ensure effective delivery and sustainability, the project also supported a Project Implementation Support component. This included the establishment of a dedicated Project Implementation Unit (PIU), provision of furniture and equipment, and the development of robust systems for project monitoring and evaluation. Additional consultancies were financed to prepare a Project Operations Manual, establish a community participation framework, develop a gender equality guidance note, and implement a referral and tracking system for project beneficiaries. Mid-term and final evaluations, as well as financial audits, were also included to support accountability and learning.

2.05 Together, these components formed an integrated response to the structural and social drivers of youth vulnerability in Southside Belize City, linking community empowerment with institutional strengthening and service expansion.

Rationale (context at appraisal)

2.06 The **Youth and Community Transformation (YCT) Project in Belize** emerged in direct response to the Government of Belize's request for support from the Caribbean Development Bank (CDB) to confront urgent social and security challenges affecting Belize City's Southside. This section, based on the information contained in the appraisal report, outlines the project's context and rationale, emphasising the acute vulnerabilities in this urban area and the national and institutional frameworks that shaped the project's design.

2.07 Southside Belize City is home to nearly three-quarters of the city's population and is characterised by entrenched poverty, social exclusion, and a disproportionate share of violent crime. The area's youth, particularly males aged 8 to 19, are both the primary victims and perpetrators of homicides, often linked to gang activity. The growth of gang violence has been fuelled by a convergence of factors, including fractured family structures, limited access to quality education and early stimulation, high dropout rates, and bleak employment prospects. Many families live in overcrowded, under-serviced neighbourhoods, where insecure tenure and deteriorating infrastructure create conditions that facilitate criminal activity and further erode community trust in law enforcement.

2.08 Notably, at appraisal, the Belize district had one of the highest unemployment rates in the country, and Southside communities were disproportionately affected. With limited employment options and reduced access to social services, many residents (particularly women and youth) relied on informal or illicit means of survival. Girls were sometimes forced into transactional relationships at an early age. At the same time, boys were recruited by gangs as early as age nine, exposed to firearms, and socialised into cycles of violence.

2.09 Despite this challenging environment, communities displayed remarkable resilience. Local initiatives, often led by women, mobilised to provide educational support, childcare, and basic services. At the same time, national NGOs like the YMCA and YWCA had worked to create safe spaces and provide second-chance learning opportunities. Government-supported centres such as the Samuel Haynes Institute of Excellence and the Yabra Community Policing Resource Centre played a pivotal role, but, at the time of appraisal, their reach was constrained by limited resources.

2.10 The national policy landscape provided a strong foundation for the YCT Project. Belize's Medium-Term Development Strategy (2010–2013) and the RESTORE Belize Programme both emphasised investment in education, citizen security, and social protection, particularly for vulnerable groups. These frameworks were supported by other donor-financed interventions targeting infrastructure development, education reform, and youth crime prevention. However, gaps remained in service coordination, monitoring and evaluation, and the ability to scale effective initiatives to meet growing community needs.

2.11 CDB's strategic priorities were closely aligned with the project's aims. The YCT Project supported Belize's Country Strategy Paper (2011–2015) by directly addressing poverty and social instability. It also advanced CDB's corporate goals of inclusive social development and citizen security under the Special Development Fund (Unified) 7.

2.12 The project's rationale rested on a recognition that citizen security challenges are deeply interlinked with social and economic exclusion. It proposes an integrated social crime prevention approach that combines early childhood support, literacy and life skills training, community-based mediation, and safe spaces for youth. By expanding access to social services, enhancing inter-agency collaboration, and strengthening institutional capacity—particularly in the Ministry of Human Development—the project aimed to reduce youth vulnerability to crime and contribute to improved community security in Southside Belize City.

Expected Impact

2.13 Contribute to improved community and citizen security in Belize City.

Objectives or Expected Outcomes

2.14 The objective of the project is reduced vulnerability of children and youth to crime and gang membership in the Collet, Lake Independence, Pickstock and Port Loyola divisions of Belize City. The overall impact of the project is improved citizen and community security in Belize City. This will be achieved by providing services to enhance literacy and adaptive life skills, support conflict mediation, and improve inter-linkages and the sharing of best practices among Participating Agencies working in those communities.

2.15 Objectively verifiable indicators were developed for the project outcomes:

- (a) Improvement in literacy and numeracy skills among youth.
- (b) 80% retention of youth in secondary school among those attending programmes by 2017.
- (c) 80% retention of children in primary school among those attending programmes.

(d) 80% of youth completing employment training programmes secure employment within six months of completion of training.

(e) 80% reduction of school-based violence in host communities by 2017.

Components and/or Outputs

Components

2.16 The Project consisted of the following components:

(a) **Transformation Programmes** - including the enhancement of basic literacy and numeracy skills, adaptive life skills and employability, as well as community support activities for children, youth and families;

(b) **Community Infrastructure Development** - including the construction of a new resource centre near the Lake Independence community; and

(c) **Programme Implementation Support** - including project management, and monitoring and evaluation and other consultancies.

Outputs

2.17 The planned outputs were:

(a) Community infrastructure rehabilitated/ constructed and operational.

(b) Transformation programmes for at-risk children/ youth were developed and implemented in the five resource centres.

(c) Conflict mediators trained and community dialogues completed.

(d) Sports and Expressive arts activities implemented.

(e) POM completed and in use.

(f) Mid-term evaluation completed.

(g) Final evaluation completed.

(h) Referral system developed.

(i) Project website developed.

(j) Furniture, equipment, and learning materials and equipment procured.

2.18 As for the project outcomes, objectively verifiable indicators were defined for project outputs and are referred to as “planned components (outputs) in the PCR.³ This list is also included in the appraisal document as part of the Design and Monitoring Framework Table.

- Wilton Cumberbatch field rehabilitated and in use for community development activities by Q3, 2015
- Samuel Haynes Institute of Excellence (SHIE) compound fenced by Q4, 2015
- Lake Independence Resource Centre (LIRC) constructed and in use by Q1, 2015
- 3 items of community infrastructure completed by December 31, 2014
- 6,000 beneficiaries of community infrastructure interventions by Q4, 2017
- 16 trainers/coaches/facilitators in place by Q1, 2014
- 4,350 beneficiaries of transformation programmes by Q4, 2014
- 12 Peer Mediators trained by Q4, 2014
- 12 community conflict mediators trained by Q4, 2014
- 8 Community dialogues held by Q4, 2017
- 8 community-based sports and expressive arts events held by Q4, 2017

³ Project Description at appraisal section, pages 6 and 7 of the PCR.

- MOUs with Participating Agencies (PAs) signed and effective by Q2, 2014
- Programme Operations Manual (POM) completed by Q2, 2014
- Mid-term evaluation completed by Q4, 2015
- Final evaluation completed Q3, 2017
- Beneficiary referral system completed by Q2, 2014
- Web portal completed by Q3, 2014

Provision of Inputs

2.19 A summary of project costs and financing at appraisal is provided in Table 1.

TABLE 1: SUMMARY OF PROJECT COSTS AND FINANCING ESTIMATED AT APPRAISAL⁴
(\$'000)

Item	CDB		GOBZ	Total
	SFR	GRANT		
1. Transformation Programme				
(a) Basic Literacy and Numeracy	308	0	34	342
(b) Adaptive Life Skills Programme	458	0	78	536
(c) Employment Enhancement	0	210	440	650
(d) Community Support	725	0	20	745
2. Community Infrastructure Support				0
(a) Land	0	0	350	350
(b) Rehabilitation of the Wilton-Cumberbatch Recreational Park	889	0	0	889
(c) Fencing of SHIE	36	0	0	36
(d) Construction of LIRC	3,648	0	1,388	5,036
(e) Construction Supervision	210	0	0	210
3. Programme Implementation Support				0
(a) Learning Materials, Equipment and Furniture	394	0	158	552
(b) Consultancies, Workshop and Meetings	257	0	38	295
(c) PIU	686	0	534	1220
(d) M&E	300	0	45	345
(e) Financial audits	0	0	5	5
(f) TA-YCT Project Preparation Consultants	0	0	682	682
Base Cost	7,911	210	3,772	11,893
Physical Contingencies	1,187	0	112	1,299
Price Contingencies	632	0	219	851
Interest During Construction (IDC) & Commitment Fee	670	0	0	670
Total Cost	10,400	210	4,103	14,713
<i>Composition (%)</i>	<i>71%</i>	<i>1%</i>	<i>28%</i>	<i>100%</i>

⁴ Appraisal Document Page 15.

Implementation Arrangements

2.20 It was determined that a project Coordinator (PC) would be engaged by MOHD and be responsible for overall project implementation. The qualifications and experience of the PC must be acceptable to CDB. The PC reported to the Chief Executive Officer (CEO) in MOHD and was supported by PIU. As a minimum, the PIU was to include full time M&E and procurement specialists, with qualifications and experience acceptable to CDB, who were to be engaged by MOHD. The PIU was to comprise adequate administrative, financial and engineering resources. The PC, M&E Officer and engineering support was to be financed from the proceeds of the Loan.

Implementation Coordination

2.21 Several PAs were responsible for assisting with project inputs. These entities provided technical support/advice to the work of the PIU and were involved in finalising the details of each proposed sub-programme in their area of competence, or at their particular centre, through the formation of PA Working Groups. The Project relied on the cooperation agreements as outlined in a MOU between CRD and each other PA. The current PAs are: MOE (Literacy Unit), YCPU, YMCA, SHIE, YFFC, CRD, NSC and NICH. Each PA will appoint a liaison officer to coordinate its participation in the programme. The appointment of the liaison officer was to included in each MOU. The terms of reference of the liaison officers were defined in POM. An overview of the Project Management Organisational Structure is provided at Appendix 5.1. The PIU and technical supporting organisations was expected to meet at least quarterly or as necessary to address technical challenges arising across sub-programmes during implementation and to review the POM.

Project Steering Committee

2.22 A Project Steering Committee (PSC) provided oversight and policy direction. The composition of the PSC and the duties and responsibilities of PIU members are provided at Appendix 5.2

Engineering Consultancy Services

2.23 Design services were provided under the preparation TA and are expected to be completed in February 2013. GOBZ will, in accordance with the procurement procedures applicable to the Loan, select and engage engineering consultants to be financed from the Loan to provide construction supervision services.

Identification of Risks and Mitigation Measures⁵

Risks	Mitigating Measures	Level of Likelihood /Impact
“Silo” culture prevents collaborative working among stakeholders/service providers.	1. Collaborative cross-agency planning, monitoring and coordination are included at several levels and will be linked to specific outputs and plans.	High/High
	2. Accountability measures are in place [Memorandum of Understanding (MOU)].	
Delays in the provision of GOBZ counterpart financing.	1. Project builds on existing programmes and seeks to avoid duplication through sharing resources with other projects where appropriate.	Medium/High

⁵ Appraisal Document Page 20.

Risks	Mitigating Measures	Level of Likelihood /Impact
	2. GOBZ remains committed to improving security in Belize City and has included the required works in the 2013-2014 budget plans.	
Inability to source adequately qualified personnel for PIU.	1. CDB will finance key personnel in the PIU and will expand the available pool of resources by seeking regional expertise where necessary.	Medium/High
	2. The PIU will share resources with existing projects as appropriate.	

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

3.01 At appraisal, the reduction of vulnerability of children and youth to crime and gang membership in Belize City's Southside was considered a high priority by the Government of Belize. This need was motivated by persistently high levels of violent crime, especially among young men, and the growing social exclusion faced by at-risk families in the Collet, Lake Independence, Pickstock, and Port Loyola divisions. The appraisal report indicated that the project was expected to contribute directly to national priorities by expanding access to literacy, life skills, and employability programmes, while also addressing deficits in safe community spaces through the construction of the Lake Independence Resource Centre (LIRC) and other infrastructure. By focusing on poverty reduction, human development, and citizen security, the project's design was aligned with Belize's Medium-Term Development Strategy (2010–2013) and the RESTORE Belize Programme, both of which emphasised violence reduction, social inclusion, and the provision of protective services to vulnerable youth.

Project Outputs

3.02 At appraisal, the project was scheduled to have been implemented over a period of four years and three months, from June 30, 2013, to September 30, 2017. During this time, the loan from the Caribbean Development Bank (CDB) was expected to be fully disbursed by September 30, 2017. In practice, the PCR indicates that the project lasted seven years and nine months, from December 12, 2012 (Board approval⁶) with effectiveness in May 7, 2015 (Date of Eligibility for First Disbursement), through to the final terminal disbursement on March 31, 2021 — a cumulative extension of 39 months beyond the original schedule⁷.

3.03 The Appraisal Report identified three main components and associated outputs:

1. **Community Infrastructure Development** – the construction of the LIRC, rehabilitation of the Wilton Cumberbatch Field, and fencing of the Samuel Haynes Institute of Excellence (SHIE).
2. **Transformation Programmes** – to strengthen literacy, numeracy, adaptive life skills, employability, and provide community support for children, youth, and families. These included initiatives such as Family Pre-Literacy, After-School Literacy, Literacy Without Borders, Gang Resistance Education and Training (GREAT), Self-Esteem and Conflict Resolution training, and Youth Enterprise and Job Skills Training.

⁶ The date of Loan Contract Signature indicated in the PCR was September 11, 2013

⁷ The original date of Terminal Disbursement was September 30, 2017

3. **Programme Implementation Support** – including establishment of a Programme Operations Manual (POM), monitoring and evaluation systems, a beneficiary referral system, and consultancy services for construction supervision and evaluations.

3.04 The expected components and outputs were clearly linked to the project’s development objective of reducing the vulnerability of children and youth to crime and gang membership. For instance, transformation programmes were to provide structured literacy interventions, gang resistance education, life skills training, and employment attachments for at-risk youth. At the same time, infrastructure investments were intended to create safe, youth-friendly spaces for community engagement.

3.05 At completion, the PCR confirms that these outputs were delivered, though with significant delays and variations across components. Overall, while the project’s design at appraisal laid out a comprehensive and well-structured set of outputs, the PCR demonstrates that actual delivery required extended implementation periods, adjustments in scope and timing, and underutilisation of resources, especially for transformation programmes.

3.06 The PCR assesses the project’s performance in terms of output achievements and implementation progress of components as marginally unsatisfactory, primarily because of the delays in completing the outputs. It indicates that all three planned infrastructure investments were ultimately delivered — LIRC, the Wilton Cumberbatch Field, and the fencing of SHIE — but only after substantial delays, with completion occurring between 2016 and 2018, well beyond the original 2014–15 targets. The PCR also notes that beneficiaries of community infrastructure interventions reached 6,526 by project closure, surpassing the appraisal target of 6,000.

3.07 By contrast, transformation programmes, while successfully implemented in areas such as literacy improvement, school retention, and conflict mediation, achieved lower-than-expected coverage, with only about 31% of allocated CDB funds disbursed for this component due to difficulties in mobilising trainers and sustaining community-level delivery. Programme implementation support was more consistent, with the development of the Programme Operations Manual, a beneficiary referral system, and the completion of both mid-term and final evaluations. However, these were delivered later than anticipated.

3.08 The evaluator differs with the PCR’s overall assessment and considers that project implementation was satisfactory as outputs were achieved, while noting that prolonged delays and uneven performance across components characterised execution. As highlighted in Annex 4 of the PCR, the project experienced a 39-month extension beyond the original closing date, with the final terminal disbursement taking place in March 2021 instead of September 2017. These delays were mainly due to slow project start-up, procurement challenges, and contractor cash-flow difficulties, which in turn postponed the completion of the LIRC until late 2018, several years after appraisal targets. Implementation support outputs, such as the Programme Operations Manual, beneficiary referral system, and M&E activities, were completed, albeit later than planned, and contributed positively to institutional strengthening. On balance, therefore, while the evaluator agrees with the PCR’s assessment that outputs were achieved to a satisfactory degree, the significant implementation delays and resource underutilisation should be noted as important factors tempering the overall performance of execution.

Project Cost, Disbursements, Borrower Contribution and Conformance to Schedule

Project Cost

3.09 The PCR’s matrix of project costs indicates that there were notable differences between estimated and actual expenditures. At appraisal, the total project cost was estimated at USD7.356 mn, with CDB financing USD5.305 mn (including loan and grant resources) and counterpart contributions of USD2.051 mn. At completion, the actual cost financed by CDB amounted to USD4.371 mn, reflecting an 18% shortfall relative to appraisal estimates. This variance was primarily attributed to underutilisation of funds for transformation programmes, where only about 31% of the allocated resources were disbursed, and

to delays and cost adjustments in the infrastructure component, including price fluctuations in building materials and modifications to the Wilton Cumberbatch Field design. Despite these changes, the three main infrastructure outputs were eventually delivered. The evaluator therefore concurs with the PCR that while the project's core objectives were achieved, the cost variations highlight both implementation challenges and a reduced scale of programme-based interventions, which affected overall efficiency. Table 2 itemises the project cost per project component.

TABLE 2: SUMMARY OF ACTUAL PROJECT COSTS AND FINANCING

Components	CDB				GOBZ + BENEFICIARIES			
	Original	Revised	Actual	Variance (Actual vs Original) (%)	Original	Revised	Actual	Variance (Actual vs Original)
Transformation Programme	850,500	264,766	264,766	-69	286,000	286,000	286,000	0
Community Infrastructure Support	2,391,500	2,383,949	2,383,949	0	869,000	869,000	286,000	0
Programme Implementation Support	818,500	468,993	468,993	-43	731,000	731,000	731,000	0
Infrastructure works		189,410	189,410	100	0	0	0	0
Institutional Strengthening		347,679	347,679	100	0	0	0	0
Capacity Building	0	380,819	380,819	100	0	0	0	0
Base Cost	3,955,500	3,930,616	4,035,616	-1	1,886,000	1,886,000	1,886,000	0
Physical Contingencies	593,500	0	0	-100	56,000	56,000	56,000	0
Price Contingencies	316,000	0	0	-100	109,000	109,000	109,000	0
Interest During Implementation	335,000	335,000	335,000	0	0	0	0	0
Total Project Cost	5,200,000	4,265,316	4,370,616	-18	2,051,000	2,051,000	2,051,000	0
%	72	68	68	-6	28	32	32	0

Disbursements

3.10 At appraisal, the first disbursement was planned to be made by June 30, 2013, and the Loan was intended to be fully disbursed by September 30, 2017. According to the PCR, the TDD was extended three times for a cumulative 39 months (original: Sept 30, 2017; actual last disbursement: Mar 31, 2021). These delays were linked primarily to slow project start-up, procurement bottlenecks, and contractor cash-flow challenges that prolonged implementation, especially for the infrastructure component.

Borrower Contribution

3.11 Belize's contribution was **as planned** during the appraisal phase, amounting to **the USD2.05 mn** committed initially. According to the PCR, there was no variance on the total amount; however, given the

variance on the funding provided by CDB, the counterpart contribution shifted from 28% of the project at appraisal to 32% at completion. The PCR indicates that *GOBZ's counterpart contributions, both cash and in-kind, were critical for covering the costs related to PAs which delivered numeracy and literacy programmes on the ground.*

Conformance to Schedule

3.12 At appraisal, the project was scheduled to have been implemented over a period of four years and three months, from June 30, 2013, to September 30, 2017. During this time, the loan from the Caribbean Development Bank (CDB) was expected to be fully disbursed by September 30, 2017. In practice, the PCR indicates that the project lasted from December 12, 2012 (Board approval⁸) with effectiveness in May 7, 2015 (Date of Eligibility for First Disbursement), through to the final terminal disbursement on March 31, 2021 — a cumulative extension of 39 months beyond the original schedule⁹.

Implementation Arrangements, Conditions and Covenants, Related TA, Procurement and Consultant and/or Contractor Performance

Implementation Arrangements

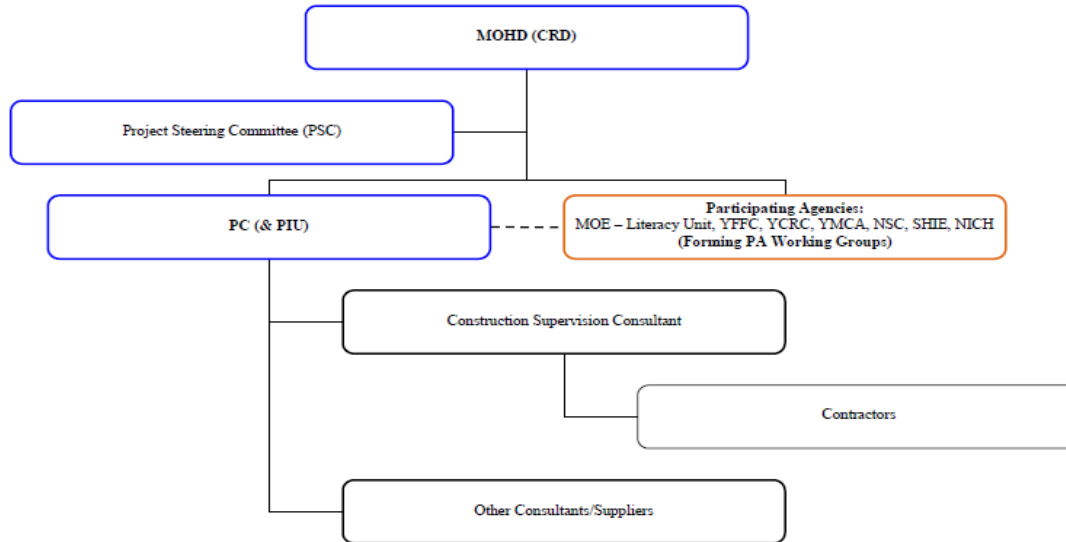
3.13 The implementing agency for the Youth and Community Transformation (YCT) Project was the Ministry of Human Development, Social Transformation and Poverty Alleviation (MOHD), which was later restructured as the Ministry of Human Development, Families and Indigenous People's Affairs (MOHDFIPA) during project implementation. The Ministry was responsible for overall coordination, fiduciary oversight, and delivery of the transformation programmes through its Community Rehabilitation Department. A Project Implementation Unit (PIU) was established within the Ministry, supported by technical specialists.

3.14 Project delivery also relied on partnerships with community-based and non-governmental organisations (NGOs) that had experience working in the target communities. Key partners included the Samuel Haynes Institute of Excellence (SHIE), the Young Men's Christian Association (YMCA), and other participating agencies engaged in literacy, life skills, and conflict mediation programmes. These organisations not only facilitated outreach and programme delivery but also contributed to strengthening institutional databases, which were later integrated into the Ministry's Family Care (FAMCARE) system for monitoring social interventions. The PCR highlights that these collaborations, while essential for community-level implementation, also faced constraints, such as the limited pool of qualified facilitators and trainers in Belize, which delayed programme roll-out. Nonetheless, the combination of the Ministry's leadership and the involvement of specialised agencies and NGOs provided the institutional backbone for the project and anchored its sustainability prospects.

⁸ The date of Loan Contract Signature indicated in the PCR was September 11, 2013

⁹ The original date of Terminal Disbursement was September 30, 2017

3.15 The appraisal report includes the following project management organizational structure:



Conditions and Covenants

3.16 The Borrower/Executing Agency's compliance with the conditions of the Loan and Grant Agreements was achieved later than planned. According to the PCR, the delay in satisfying these conditions was primarily due to slow procurement processes and limited technical and human resources within the implementing agency, which affected the timely preparation of required documentation and readiness for implementation. As a result, grant and loan disbursements began significantly later than planned, contributing to the overall extension of the project's execution period.

Related TA

3.17 As part of project implementation, the Caribbean Development Bank (CDB) provided technical assistance through a grant of USD105,000 to support an employability enhancement programme aimed at at-risk youth. This included life skills development, vocational training, and apprenticeship attachments to increase beneficiaries' chances of securing employment. In addition, CDB personnel provided technical oversight and guidance during supervision missions, particularly in addressing procurement bottlenecks and delays in infrastructure projects, as well as in monitoring the design and implementation of the Programme Operations Manual and M&E frameworks. The PCR highlights that CDB's involvement was instrumental in steering the project through extended implementation, ensuring compliance with fiduciary requirements, and providing targeted support to strengthen institutional capacity within the Ministry of Human Development and its community-based partners.

Procurement

3.18 Procurement during the project faced significant challenges that contributed to delays in implementation. The Appraisal Report anticipated that procurement would follow CDB's guidelines, covering major contracts such as the construction of the Lake Independence Resource Centre (LIRC), rehabilitation of the Wilton Cumberbatch Field, fencing of the Samuel Haynes Institute of Excellence, and consultancies for monitoring and evaluation and project management support. However, according to the PCR, procurement processes were slowed by limited technical and human resources within the implementing agency, coupled with contractor cash flow difficulties and price fluctuations in building materials, which affected contractor mobilisation and increased costs. These issues resulted in works being completed several years later than planned, with the LIRC, for example, only finalised in 2018. Overall,

while procurement was eventually completed and enabled the delivery of the main project outputs, the PCR highlights that inefficiencies in this area were a significant factor contributing to the project's extended timeline. Procurement delays directly impact the project's rating.

3.19 The PCR describes the leading causes of procurement limitations, stating that *procurement issues occurred primarily due to the frequent turnover of procurement specialists supporting the PIU. This impacted the preparation of bid documents for goods and delayed procurement processes.*

Consultant and Contractor Performance

3.20 The PCR states that cash flow issues impacted the contractor's ability to procure materials in a timely manner, which delayed construction of LIRC and consequently delayed beneficiaries' use of the facility.

Monitoring and Evaluation Design, Implementation, and Utilisation

3.21 The project's Monitoring and Evaluation (M&E) framework was designed from appraisal not merely as a compliance mechanism but as a strategic asset to strengthen accountability, coordination, and responsiveness to community needs. The AR anticipated the establishment of a beneficiary referral system, the preparation of a Programme Operations Manual (POM), and the commissioning of mid-term and final evaluations as part of the implementation support component. At completion, the PCR confirms that these tools were developed and integrated into the Ministry's Family Care (FAMCARE) system, which enabled tracking of beneficiary participation and outcomes across multiple Participating Agencies (PAs). While some PAs initially resisted sharing sub-project data with the Ministry, the system ultimately enhanced data capture and utilisation at the household and community levels, making it a central feature of institutional strengthening. Importantly, CDB played an active role during supervision missions by supporting the Ministry in dialogue with PAs, which helped secure greater buy-in and improved use of the FAMCARE platform. As a result, the M&E system not only supported project management but also increased the relevance and sustainability of interventions by ensuring that programming remained responsive to the realities of at-risk communities.

3.22 The project undertook Project Supervision Reports during its implementation; however, the exact number is not available.¹⁰

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATION)

4.01 The following are the ratings of the PCR and PSRs over the project implementation period, and the Evaluator's ratings based on the data reviewed.

Relevance

4.02 The PCR rated the Relevance of the Project at completion as **Satisfactory**, following a Highly Satisfactory rating identified as the PAS rating summary at the time of the PCR. The PCR states the following as justification to provide this rating: *“Improving the lives of marginalised youth and laying the foundation for poverty reduction and long-term social transformation continued to be accorded significant importance to GOBZ. Expanding social inclusion and crime prevention are critical factors in achieving this goal. The Project focused on inter alia, providing opportunities for vocational and skills training for hundreds of at-risk youth and participants gained employable skills, thereby increasing their chances of securing employment and reducing vulnerability to gang involvement. The Project contributed to GOBZ's*

¹⁰ The PCR coordinator indicated that “a number of PSRs were produced but are located in PPMS, a previous project management system used by CDB which became inaccessible when OP365 was implemented.”

Vision 2030, the country's long-term national development framework, designed to guide the country's progress towards a more inclusive, sustainable and prosperous future by 2030."

4.03 The PCR also indicates that the Project design complemented national policies aimed at social inclusion and poverty reduction. The design benefitted from wide stakeholder consultation which augured well for programme buy-in and the delivery modalities for the various components. The utilisation of the gender-sensitive Programme Operations Manual ensured that initiatives were developed and delivered appropriately to benefit the sexes.

4.04 After careful review of the Appraisal Report and the PCR, and based on the PAS manual, the evaluator rates the relevance of the project as Highly Satisfactory, differing with the PCR. The project meets the requirements under the assessment criteria. The design was underpinned by a comprehensive sector analysis and political economy review, with attention to cross-cutting themes such as poverty and citizen security. Lessons learned from related projects and existing community initiatives were explicitly integrated, and constraints to achieving results were considered. The project's outcomes and outputs were well aligned with national and regional development priorities, as well as with CDB's strategic objectives, ensuring timeliness and continued relevance. Stakeholder and beneficiary participation are presumed as different organizations are mentioned as part of the project, and specific activities are associated with them.

Effectiveness

4.05 The PCR rated the Effectiveness of the Project at completion as **Marginally Unsatisfactory** based on the rating of achievement of development objectives (outcomes). The PCR indicates that *"based on the achievement of outcomes including youth empowerment, community transformation) and outputs (training programmes, infrastructure development), the effectiveness of the Project is rated as **satisfactory**. Factors such as implementation delays, and sustainability mechanisms influenced the rating."*

4.06 The evaluator concurs with the Marginally Unsatisfactory rating included in the PCR. The project's outcomes were mostly achieved, including those associated with cross-cutting themes, although with significant delays primarily due to procurement challenges. Negative externalities were identified during the PCR. As stated in the PCR, two of the KPI's were not achieved: *Improvement in literacy and numeracy skills among youth (students promoted across grades in primary and secondary schools) by 2017, and 80% of youth completing employment training Programmes secure employment within six months of completion of training.*

Efficiency

4.07 The rating for efficiency provided in the PCR is **Marginally Unsatisfactory**. The PCR explains the differences encountered in terms of project costs at completion and lists the following:

1. *Transformation Programme: The 69% variance in the component cost was due to procurement delays and cost escalation.*
2. *Programme Implementation Support: The 43% variance in component cost was due to staffing and human resource constraints, including the turnover in the position of Procurement Officer.*
3. *Infrastructural Works: The 100% variance in cost was due to price fluctuations in building materials, delayed contractor mobilisation, cash flow challenges, and the cost of contractor extensions.*
4. *Institutional Strengthening: The 100% variance was due to the slow adoption of the FamCare management system by PAs for inputting programme beneficiary data.*
5. *Capacity-Building: The 100% variance in capacity-building was due to delays in the scheduling/execution of training programmes due to lack of qualified and experienced trainers at the community level for some initiatives.*

Therefore, given the cost variances and the delays in the implementation, the PCR considers that the efficiency of the project was not maximised.

4.08 After reviewing the available information, the evaluator agrees with rating the efficiency of the project as Marginally unsatisfactory. This rating reflects the low cost-efficiency in achieving results and outputs within budget, due to an increase in costs caused by procurement delays and setbacks in delivering infrastructure. Procurement challenges, contract cash flow issues (which impacted the contractor's ability to procure materials promptly, which delayed construction of LIRC and consequently delayed beneficiaries' use of the facility), and high staff turnover also impacted the rating of this criterion. As stated in the PCR, although outputs were eventually achieved, the extended timeframe and inefficiencies in delivery prevented the project from maximizing value for the resources invested.

Sustainability

4.09 Following an analysis of critical factors that contributed to or undermined the sustainability of the project in the future, after completion, and a thorough assessment of risks that materialised throughout the projects implementation and their possible impact on the sustainability of the project, the PCR rates this criterion as **Satisfactory**. This rating is justified mentioning that *“the Project laid a solid foundation for youth and community development in Belize City with the social crime prevention model providing an important approach for developing and implementing similar interventions in at-risk/underserved communities across the country, and the Region. The sustainability of project outcomes is contingent upon ongoing institutional support, community involvement, financial investment and robust M&E systems. GOBZ committed to providing financing to the implementing Ministry and PAs that are working at the grassroots level in communities to strengthen their capacity to deliver community development/citizen security interventions, given their contribution to community and national development.”*

4.10 Sustainability is rated satisfactory by the evaluator, concurring with the PCR, as the project established durable infrastructure such as the Lake Independence Resource Centre, and fostered institutional partnerships that provide a solid foundation for continued youth and community development. The GOBZ has committed resources to maintain facilities and support participating agencies, while community involvement and NGO engagement strengthen prospects for long-term utilisation and impact. Nonetheless, sustained financing, institutional support, and maintenance remain critical to preserving benefits into the future.

Borrower and EA Performance

4.11 The rating for the Borrower/Implementation Agency Performance at completion (rating in the PCR) is **Satisfactory**. The rating is supported by indicating that *“the Ministry demonstrated strong leadership and commitment in implementing a complex, multi-sectoral project under challenging circumstances. While it faced notable delays and coordination challenges, it successfully delivered key outputs, engaged stakeholders, and used the project to strengthen social services delivery to vulnerable youth. The positive outcomes can be enhanced by strengthening M&E and procurement.”*

4.12 After review, the Borrower and Implementing Agency are rated satisfactory, in agreement with the PCR, as they managed to steer a demanding, multi-stakeholder intervention in a challenging context. While weaknesses in procurement and staff continuity created delays, the Ministry maintained steady commitment, mobilised resources, and oversaw delivery of major outputs. These efforts contributed to stronger service provision for at-risk youth and established groundwork for future community development initiatives.

CDB Performance (Self Assessment Rating)

4.13 This criterion is rated as **Satisfactory** in the PCR. This document indicates that *“CDB played a pivotal role in shaping and financing a well-targeted citizen security intervention, offering critical technical and timely supervision related to the transformational programmes, capacity-building, institutional strengthening and infrastructure components. While some implementation and sustainability challenges emerged, CDB’s partnership with GOBZ laid the foundation for future youth and social development initiatives. The strength of the partnership leveraged resources from development partners including the United Nations Children’s Fund which provided materials to support the delivery of child-friendly programmes at LIRC during the COVID-19 pandemic.”*

4.14 After careful analysis, CDB’s performance is assessed as Satisfactory. Aside from the justification provided in the PCR, it is noted that the Bank ensured that the project’s expected outcomes were linked to Belize’s development priorities on poverty reduction, citizen security, and social inclusion, consistent with the country strategy. The intervention addressed an identified problem through a design that included the essential elements to achieve the development objectives, supported by relevant lessons from prior operations. The Bank’s supervision provided timely technical support, particularly on procurement (even preparing procurement documents) and M&E, reinforcing borrower commitment and stakeholder participation throughout implementation.

5. OVERALL PERFORMANCE RATING

Overall Performance Rating

5.01 The PCR analyses five key performance indicators (KPI) and indicates that three of them were achieved while the remaining two were not. Following individual KPI rating, the PCR justifies its rating with the following information:

“Targets were met but some were achieved beyond the dates as stated at appraisal, as follows:

- *Improvement in literacy and numeracy skills among youth.*
- *80% retention of children in primary school among those attending programmes.*
- *80% of youth completing employment training programmes secure employment within six months of completion of training.*
- *80% reduction of school-based violence in host communities by 2021.*

5.02 *The outcomes were not all realised within the time frame stated at appraisal, but some were achieved by the end of the project in 2020 and continue into the future. The variance was attributed to the delayed project start-up and procurement of experienced facilitators and counsellors during the early stages of the intervention to deliver transformation programmes.”*

5.03 In terms of **contribution to the Country Strategy**, the PCR states that *“The Project contributed significantly to CDB’s strategy of supporting GOBZ to present a holistic approach to development, pursuing the twin objectives of economic growth and poverty reduction through direct social interventions to address vulnerabilities and promote inclusive development. It supported GOBZ in addressing some of the literacy and life skills deficits among at-risk children and youth from low-income households in Southside, Belize City. It enhanced literacy and numeracy skills, improved employability prospects of disadvantaged youth and income-generation capability of at-risk young men and women and increased involvement of poor communities in their development.”*

5.04 The Evaluator rates the overall performance of the project as Satisfactory. The rating is based on the PAS manual criteria and the previously explained assessment. Overall, the evaluator considered that

even if the project faced significant delays derived primarily from procurement process inefficiencies, the achievements made by the project contributed to the priorities identified since the appraisal.

Lessons

5.05 The PCR identified two lessons learned from the implementation of the project:

1. Interoperability of social systems is critical to ensure appropriate targeting of beneficiaries to minimise errors of inclusion and exclusion. *As social support systems were not fully harmonised, there were instances where persons who qualified for social support were excluded from accessing wrap-around services. Interoperable systems would ensure that the needs of beneficiaries are addressed in an efficient and effective manner, e.g. youth receiving skills training from one agency could be referred to another for job placement and counselling as a result of systems interface through the amalgamation of services.*

2. Earlier buy-in to the FAMCARE system and provision of data on clients/beneficiaries of the various programmes to MOHD improve monitoring and evaluation efforts and strengthen the wrap-around service delivery approach. *This is a key lesson highlighting that early buy-in ensures ownership and usage of systems and in the case of FamCare, enables the tracking of clients' cases, referrals and outcomes across agencies. PAs were initially reluctant to provide data to populate FamCare but later complied after seeing the benefits around improved targeting and monitoring of beneficiaries.*

6. RATINGS:

Criteria	PCR ¹¹	OIE Review	Reason, if any, for Disagreement/Comments
<i>Relevance</i>	Satisfactory	Highly Satisfactory	Following the rating criteria the evaluator considers that the project meets the requirements to be assessed as highly satisfactory.
<i>Effectiveness</i>	Marginally Unsatisfactory	Marginally Unsatisfactory	
<i>Efficiency</i>	Marginally Unsatisfactory	Marginally Unsatisfactory	
<i>Sustainability</i>	Satisfactory	Satisfactory	
Composite (Aggregate) Performance Rating	Marginally Unsatisfactory ¹²	Satisfactory	
<i>Borrower & EA Performance</i>	Satisfactory	Satisfactory	
<i>CDB Performance</i>	Satisfactory	Satisfactory	
<i>Quality of PCR</i>	Not applicable	Highly Satisfactory	

7. COMMENTS ON PCR QUALITY

7.01 The evaluator finds the quality of the PCR to be **highly satisfactory**, as it provides a clear, evidence-based, and well-structured assessment of the project. The report systematically compares planned versus

¹¹ PPES scores and ratings used in PCR and PSRs to be converted to PAS 2013 scores and ratings, using the equivalence matrix in the relevant PAS 2013 Manual (Public Sector Investment Lending and TA; PBL; CSP).

¹² Based on the PAS composite rating criteria.

actual outputs and outcomes, integrates detailed financial and disbursement data, and candidly discusses critical implementation challenges such as procurement delays, capacity constraints, and underutilisation of resources. Importantly, it also highlights institutional development contributions, sustainability risks, and lessons learned, providing a balanced narrative that captures both achievements and shortcomings. The inclusion of detailed annexes, such as the cost matrix and outcome indicators, further enhances transparency and analytical depth, making the PCR a reliable and comprehensive basis for validation.

8. DATA SOURCES FOR VALIDATION

- CDB Appraisal Document Paper BD 112/12 Corr.1
- PCR dated (April 17, 2025)

9. RECOMMENDATIONS FOR OIE FOLLOW-UP

9.01 No recommendations for follow-up.

MANAGEMENT RESPONSE



MEMORANDUM

To: Strategic Advisory Team
thru' Director, Projects Department

Subject: Management Response – Office of Independent Evaluation (OIE) Project Validation Report Youth and Community Transformation Project - 60/SFR-BZE – Belize

From: Division Chief, Social Sector Division

Date: February 4, 2026

1. Introduction

Management of Projects Department, thanks the Office of Independent Evaluation (OIE) for its validation of the Project Completion Report (PCR) for the Project, 'Youth and Community Transformation 60/SFR-BZE – Belize'.

2. Agreement with OIE's Overall Performance Rating

Management concurs fully with OIE's assessment that the overall project performance is **Highly Satisfactory** - based on the composite scores for the Project's relevance, effectiveness, efficiency, and sustainability, as detailed in the PCR.

3. Conclusion

Management appreciates OIE's rigorous and constructive validation and recognises that the findings affirm the soundness of the Project's design and implementation approach, as well as the value of partnerships with national institutions and community stakeholders. The favourable assessment provides important validation of lessons learned in advancing youth empowerment, strengthening agency, and improving socio-economic development outcomes for youth, which can inform the design and implementation of future youth-focused and community-driven interventions.

Management is pleased with the successful completion and strong performance of the Project, which demonstrably contributed to improved opportunities, skills development and social inclusion for targeted youth cohorts. The Project therefore reflects the Bank's continued commitment to delivering measurable outcomes and demonstrating development effectiveness across its Borrowing Member Countries.

A handwritten signature in black ink, appearing to read "Martin Baptiste".

Martin Baptiste, Ph. D.

EE:MB:cl

Attachment

cc: Ms. Thania de la Garza, Evaluation Officer, OIE

LOGICAL FRAMEWORK MATRIX

Narrative Summary	Objectively Verifiable Indicators ^{13/}	Means of Verification	Important Assumptions
<p>Project Impact: Contribute to improved community and citizen security in Belize City.</p>	<ol style="list-style-type: none"> 1. 50% reduction in number of youth homicides in the City by 2020. 2. 50% reduction in number of other violent crimes in the City by 2020. 	<ol style="list-style-type: none"> 1. Statistics from Police. 2. MOHD. 	<p>Assumptions for Achieving Goal:</p> <ol style="list-style-type: none"> 1. GOBZ pursues sound social and economic policies and maintains favourable investment climate. 2. Sustained growth recovery in Belize in the medium-term. 3. Additional job opportunities are created in Belize City for unemployed youth.
<p>Project Outcome: Reduced vulnerability of children and youth to crime and gang membership in the Collet, Lake Independence, Pickstock and Port Loyola divisions of Belize City.</p>	<ol style="list-style-type: none"> 1. Improvement in literacy and numeracy skills among youth. 2. 80% retention of youth in secondary school among those attending programmes by 2017. 3. 80% retention of children in primary school among those attending programmes. 4. 80% of youth completing employment training programmes secure employment within six months of completion of training. 5. 80% reduction of school-based violence in host communities by 2017. 	<ol style="list-style-type: none"> 1. Records from the Literacy Unit. 2. MOE records. 3. Labour statistics. 4. MOHD records. 5. Direct observation. 6. Project M&E Reports. 	<p>Assumptions for Achieving Purpose:</p> <ol style="list-style-type: none"> 1. School supervision is effective. 2. Training programmes are effective. 3. Other crime and violence reduction programmes are effective. 4. Programmes to improve the built environment are effective. 5. Communities are able to maintain safety of facilities. 6. Continuing collaboration of the private sector.
<p>Project Output: 1. Community infrastructure rehabilitated/ constructed and operational.</p>	<ol style="list-style-type: none"> 1. Wilton-Cumberbatch Field rehabilitated by Q2 2015 and in use for community development activities by Q3 2015. 2. SHIE compound fenced by^{14/} Q4 2013. 3. LIRC constructed by Q4 2014 and in use by Q1 2015. 4. 3 items of community infrastructure completed by December 31, 2014. 	<ol style="list-style-type: none"> 1. Consultant's and PIU Completion Reports. 2. CDB PCR. 	<p>Assumptions for Achieving Outputs:</p> <ol style="list-style-type: none"> 1. Programme facilities are appropriately used and adequately maintained. 2. Facilities not damaged by vandalism. 3. No significant delays in construction/ project implementation. 4. Children and youth participate in

^{13/}Indicators and data to be disaggregated (male/female) where appropriate. Dates refer to end of that quarter.

^{14/}SHIE will continue in operation during construction.

APPENDIX 2

	5. 6,000 beneficiaries of community infrastructure interventions by Q4 2017.		programmes.
2. Transformation programmes for at-risk children/ youth developed and implemented in the five resource centres.	1. 16 trainers/coaches/facilitators in place by Q1 2014. 2. 4,350 beneficiaries of transformation programmes by Q4, 2014.		
3. Conflict mediators trained and; community dialogues completed.	1. 12 Peer mediators trained by Q4 2014. 2. 12 Community conflict mediators trained by Q4 2014.		
4. Sports and Expressive arts activities implemented.	3. 8 Community Dialogues held by Q4 2017. 4. 8 Community-based sports and expressive arts events held by Q4 2017.		
5. POM completed and in use. 6. Mid-term evaluation completed. 7. Final evaluation completed. 8. Referral system developed. 9. Project website developed. 10. Furniture, equipment and learning materials and equipment procured.	1. MOUs with PAs signed and effective by Q4 2013. 2. POM completed by Q2 2014. 3. Mid-term evaluation completed by Q4 2015. 4. Final evaluation completed by Q3 2017. 5. Beneficiary referral system completed by Q2 2014. 6. Web portal completed by Q3 2014.		

CARIBBEAN DEVELOPMENT BANK



VALIDATION OF PROJECT COMPLETION REPORT

ON

**GRANTLEY ADAMS INTERNATIONAL AIRPORT PAVEMENT REHABILITATION
AND EXPANSION – BARBADOS**

OFFICE OF INDEPENDENT EVALUATION (OIE)

September, 2025

LOAN NO.: 7/SFR-OR-BAR

PRN NO.: 73512

Head Office of Independent Evaluation	-	Roberto La Rovere
Evaluator	-	Serena Rossignoli
Quality Control Reviewers	-	

CURRENCY EQUIVALENT

Dollars (\$) throughout refer to United States Dollars unless otherwise noted.

USD 1.00 = BBD 2.00

BBD 1.00 = USD 0.50

ACRONYMS AND ABBREVIATIONS

BSLC	Barbados Survey of Living Conditions
CAD	Civil Aviation Department
CDB	Caribbean Development Bank
COVID-19	Coronavirus Disease 2019
EA	Executing Agency
FBO	Fixed-Based Operator
FOD	Foreign Object Debris
GAIA	Grantley Adams International Airport
GDP	Gross Domestic Product
GOBD	Government of Barbados
HDR	Human Development Report
ICAO	International Civil Aviation Organization
LED	Light Emitting Diode
MTIT	Ministry of Tourism and International Transport
OCR	Ordinary Capital Resources
PCR	Project Completion Report
SDF	Special Development Fund
TDD	Terminal Disbursement Date
USD	United States Dollars

(ii)

MEASURES AND EQUIVALENTS

1 metre (m)	=	3.281 feet (ft.)
1 kilometre (km)	=	0.621 mile (mi)
1 square metre (m ²)	=	10.756 square feet (ft ²)
1 square kilometre (km ²)	=	0.386 square mile (mi ²)
1 hectare (ha)	=	2.47 acres (ac)
1 tonne	=	0.98 ton (tn)
1 litre (l)	=	0.22 imperial gallons (ig)
1 cubic metre (m ³)	=	264.172 gallons (gals)
1 millimetre (mm)	=	0.039 inch (in)

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1. BASIC PROJECT DATA			
Project Title	Grantley Adams International Airport Pavement Rehabilitation and Expansion		
Country	Barbados		
Sector	Transport		
Loan No.	7/SFR-OR-BAR		
Borrower	Barbados		
Implementing/Executing Agency	Grantley Adams International Airport Inc. (GAIA)		
<u>Disbursements (\$ mn)</u>	<u>CDB LOAN</u>		
	<u>OCR</u>	<u>SFR</u>	<u>Total</u>
Loan Amount	34.39	6.00	40.39
Disbursed	34.39	6.00	40.39
Cancelled	0.00	0.00	0.00
<u>Project Milestones</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Board Approval	31 Dec 2018	31 Dec 2018	0
Loan Agreement signed	31 Dec 2018	31 Dec 2018	0
Loan Effectiveness ¹	Apr 2019	10 Oct 2019	6
<u>CDB Loan</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
First Disbursement Date	2019 Q2	28 Oct 2019	4
Terminal Disbursement Date	31 Dec 2020	31 Dec 2020	0
TDD Extensions (number)	0	0	0
<u>Project Cost and Financing (\$ mn)</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (mn)</u>
CDB Loan	40.39	40.39	0
CDB Grant	0	0	0
Other Loan	0	0	0
Counterpart	17.31	31.86	14.55
Total	57.70	72.25	14.55
<u>Terms</u>	<u>Interest Rate</u>	<u>Repayment</u>	<u>Grace Period</u>
CDB Loan	OCR: 4.0% (approx. LIBOR-based); SFR: 2.5% fixed	15 years incl. grace period	4 years
Other Loan	N/A	N/A	N/A
<u>Implementation</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Start Date ²	2019 Q1	10 Oct 2019	6
Completion Date	Oct 2020	Jun 2022	20
Implementation Period (years)	1 year	3 years	2 years
<u>Economic Rate of Return (%)</u>	<u>At Appraisal</u>	<u>PCR</u>	<u>PCVR</u>
Original Loan	16.4%	14.0%	14.0%
Additional Loan	N/A	N/A	N/A

¹ Date Conditions to First Disbursement satisfied.

² Implementation begins with satisfaction of conditions precedent

2. **PROJECT DESCRIPTION**

Rationale (context at appraisal)

The project was designed to address critical safety, operational, and capacity issues at Grantley Adams International Airport (GAIA), the sole airport serving Barbados and a key enabler of its tourism-driven economy. At appraisal (2018), sections of GAIA’s airside pavements—including runway, taxiways, and aprons—had reached or exceeded their design life and were classified as being in “serious” condition, generating Foreign Object Debris (FOD) and posing safety hazards. Frequent temporary repairs were disrupting airport operations and risked further pavement failure, potentially leading to reputational and economic consequences for Barbados.

GAIA also faced growing demand for apron capacity, particularly from corporate and general aviation traffic, and lacked the ability to accommodate Code F aircraft³ in compliance with International Civil Aviation Organization (ICAO) standards. The landside pavements and car park required rehabilitation, and there was a need to install electric vehicle charging stations to support sustainable transportation. Additionally, GAIA had high energy costs due to inefficient lighting systems. The project was aligned with the Barbados Country Strategy Paper (2015–2018) outcome of improving climate-resilient infrastructure and supported CDB’s corporate priority to strengthen social and economic infrastructure

Expected Impact

Project was expected to contribute to the **competitiveness of the tourism sector and wider economy** by ensuring safe and efficient air transport infrastructure and strengthening GAIA’s operational capacity.

Objectives or Expected Outcomes

The objectives of the project were:

- (a) To rehabilitate and expand critical airside and landside pavements to ICAO standards, ensuring safe aircraft operations;
- (b) To increase apron and taxiway capacity, enabling GAIA to accommodate peak seasonal traffic and Code F aircraft;
- (c) To improve GAIA’s institutional capacity through the development of a Sustainability Management Plan and Fixed-Based Operator (FBO)⁴ Policy;
- (d) To reduce GAIA’s energy consumption through retrofitting of pavement and apron lighting to Light Emitting Diode (LED) fixtures;
- (e) To strengthen project management and ensure timely delivery through robust supervision and monitoring mechanism.

Components and/or Outputs

Components

The Project consisted of the following components:

- (a) Infrastructure Works – Rehabilitation of runway, taxiways, aprons, East Apron expansion, construction of new South Apron and connecting taxiway, landside pavement rehabilitation and expansion, perimeter fencing reconstruction, electrical works including relocation of airfield substation.

³ Code F aircraft: Wingspan 65m but less than 80m, heavier and longer than A340-600 and B777.

⁴ Fixed Based Operator is a company that is given permission by an airport to operate on its premises to provide aeronautical services for aircraft, passengers, and crew.

- (b) Engineering and Construction-Related Services – Design services, construction supervision, quality assurance, and contract management.
- (c) Goods – Procurement of airfield lighting monitoring equipment, LED retrofitting for apron lighting, and car park electric vehicle charging stations.
- (d) Institutional Strengthening – Consultancy services for development of (i) FBO Policy and Guidelines and (ii) Sustainability Management Plan.
- (e) Project Management – Support for GAIA’s Project Management Unit (PMU), including financial auditing of the Designated Account

Outputs

The planned outputs were:

- (a) Rehabilitated runway, taxiways, aprons, expanded East Apron to accommodate Code F aircraft;
- (b) New South Apron and connecting taxiway constructed;
- (c) Rehabilitated and improved car park and landside roads, including EV charging station readiness;
- (d) Replacement of 9,000 meters of perimeter fencing;
- (e) Sustainability Management Plan and FBO Policy completed and approved by GAIA Inc.;
- (f) Retrofitting of airfield lighting to energy-efficient LED fixtures.

Provision of Inputs

Financing composition; funding source; counterpart contribution. Tabulated summary of the project cost and financing plan estimated at appraisal (refer to Table 1 below).

Financing composition: The total project cost at appraisal was USD57.697 million (mn), with CDB financing of USD40.389 mn (comprising USD34.389 mn from OCR and USD6.0 mn from SFR) and a counterpart contribution of USD17.308 mn from GAIA Inc.

Funding sources:

Source	Amount (USD mn)	% of Total
CDB Loan (OCR)	34.389	59.6%
CDB Loan (SFR)	6.000	10.4%
Counterpart Contribution	17.308	30.0%
Total Project Cost	57.697	100%

A summary of project costs and financing at appraisal is provided in Table 1.

**TABLE 1: SUMMARY OF PROJECT COSTS AND FINANCING
ESTIMATED AT APPRAISAL⁵ (\$'000)**

Item	CDB	Counterpart	Total
1. Engineering and Construction-Related Services	1,555	-	1,555
2. Goods	255	-	255
3. Infrastructure Works	35,683	7,416	43,099
4. Institutional Strengthening	142	-	142
5. Project Management	-	1,335	1,335
Base Cost	37,635	8,751	46,386
Physical Contingencies	3,575	912	4,487
Price Contingencies	989	344	1,333
Interest During Construction (IDC) & Commitment Fee	-	5,491	5,491
Total Cost	40,389	17,308	57,697
<i>Composition (%)</i>	<i>70%</i>	<i>30%</i>	<i>100%</i>

Implementation Arrangements

The Executing Agency (EA) for the project was Grantley Adams International Airport Inc. (GAIA), responsible for overall project management and implementation. A Project Management Unit (PMU) was established within GAIA, staffed with experienced engineers, financial management specialists, and a project coordinator. The PMU was supported by:

- Engineering and Construction Supervision Consultant (Stantec Consulting) procured under International Competitive Bidding, responsible for design review, construction supervision, quality control, and contract management.
- Procurement and Financial Management Support, with GAIA coordinating directly with CDB for review and approval of bidding documents, contract awards, and withdrawal applications.
- CDB Supervision, including regular review missions, quarterly progress reporting, and technical/fiduciary oversight.

Identification of Risks and Mitigation Measures⁶

The appraisal identified several risks that could affect successful project implementation and operation:

- **Implementation Risks:**
 - Delays in procurement, contract award, or mobilization of contractors/consultants.
 - Disruption of airport operations during works, causing stakeholder dissatisfaction.
 - Cost escalation due to price fluctuations or unforeseen scope changes.
 - Delays in counterpart funding availability, affecting payments to contractors.
 - Environmental and social risks during construction (noise, dust, safety incidents).
- **Operational Risks:**
 - Inadequate maintenance post-completion, leading to premature pavement deterioration.
 - Failure to institutionalize sustainability measures (e.g., energy efficiency plan).
 - Insufficient capacity to manage larger aircraft operations (Code F) safely.
 - Vulnerability to extreme weather events and natural disasters.
 - Revenue risk due to volatility in passenger traffic and macroeconomic shocks

Measures included in the project design to mitigate the implementation risks were:

⁵ Appraisal Document Page12

⁶ Appraisal Document Page 12.

- (a) **Robust Procurement Planning:** Advance preparation of tender documents and adherence to CDB's Procurement Guidelines to minimize delays.
- (b) **Dedicated PMU:** GAIA established a PMU with clear roles for engineering, procurement, and financial management.
- (c) **Supervision Consultant Engagement:** Contracted experienced supervision consultants to manage quality assurance, scheduling, and claims resolution.
- (d) **Stakeholder Engagement:** Early consultations with airlines, CAD, and airport operators to coordinate phasing of works and minimize disruption.
- (e) **Contingency Allocations:** Inclusion of physical and price contingencies to cover unforeseen works and price variations

Measures included in the project design to mitigate the operational risks were:

- (a) **Sustainability Management Plan:** Included as a project deliverable to guide energy efficiency, waste management, and environmental compliance.
- (b) **Capacity Building:** Institutional strengthening component to enhance GAIA's operational and maintenance planning capacity.
- (c) **Design Standards:** Works designed to ICAO Code F and climate-resilient standards to ensure long-term durability.
- (d) **Maintenance Budgeting:** Commitment by GAIA and GOBD to allocate funds for pavement upkeep post-project.
- (e) **Insurance and Emergency Preparedness:** GAIA to maintain adequate insurance coverage and emergency response plans to manage extreme events and operational disruptions.

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

PCR Finding:

The PCR rated the Relevance of Design as Highly Satisfactory (4.0), citing strong alignment with Barbados' transport sector priorities, ICAO safety requirements, GAIA's Master Plan, and CDB's Country Strategy. It emphasized that the project design was comprehensive, stakeholder-driven, and incorporated institutional strengthening measures.

OIE Validation:

We validate the PCR's assessment. Based on our independent review of the Appraisal Report, Board Paper BD 87/18 & Corr.1, and project documentation, we find that:

Technical Soundness: The design correctly prioritized rehabilitation of critical airside pavements and expansion of apron capacity. The technical solutions (milling and repaving, taxiway widening to Code F, drainage upgrades, climate-resilient pavement materials) were based on sound engineering assessments and ICAO standards.

Institutional Arrangements: The establishment of a GAIA-led PMU supported by an engineering supervision consultant was appropriate and realistic given GAIA's prior experience with donor-financed projects. The inclusion of institutional strengthening components (Sustainability Management Plan, FBO policy) directly targeted GAIA's operational capacity needs.

Sectoral Alignment: The project was fully aligned with Barbados' 2015-2018 Country Strategy Paper (CSP), which identified improving the quality of climate-resilient infrastructure as a key outcome. It also supported CDB's corporate priorities of strengthening social and economic infrastructure and advancing energy efficiency and climate resilience.

Risk Identification and Mitigation: Key implementation risks (procurement delays, operational disruption, funding shortfalls) were correctly identified at appraisal, with appropriate mitigation measures included: robust procurement planning, phasing of works, and inclusion of contingencies.

OIE Conclusion:

The project design was relevant, coherent, and technically sound. It adequately considered institutional capacity, sector priorities, and risk mitigation. We validate the PCR rating of “Highly Satisfactory” for Relevance of Design and Formulation.

Project Outputs

The outputs identified at design were well chosen to deliver the intended development objectives:

- **Infrastructure Outputs:** Rehabilitation of critical movement areas and expansion of apron/taxiway capacity directly addressed the project’s goal of enhancing safety and capacity at GAIA.
- **Institutional Strengthening Outputs:** Inclusion of the Sustainability Management Plan and FBO Policy addressed systemic institutional gaps and were consistent with CDB’s emphasis on institutional capacity building.
- **Energy Efficiency Outputs:** The plan to retrofit airfield lighting with LEDs was forward-looking, aligning with energy security and sustainability priorities.

OIE Comment: The logic chain was generally sound: activities → outputs → outcomes were well-articulated, and the Results Framework contained measurable indicators (pavement area rehabilitated, apron capacity, fencing length, pavement quality index). However, some outcome indicators—particularly those linked to energy savings and FBO policy implementation—relied on counterpart funding and external factors, introducing risk to full achievement that could have been highlighted more explicitly at design.

Project Cost, Disbursements, Borrower Contribution and Conformance to Schedule

The PCR reported total project cost at appraisal as USD 57.7 mn, with CDB financing 70 percent (USD 40.39 mn) and counterpart 30 percent (USD 17.31 mn), inclusive of physical contingencies (10 percent), price contingencies (3 percent), and IDC/commitment fees. Our independent review validates that these estimates and the financing plan were appropriate and consistent with good practice. Engineering cost estimates were prepared from detailed designs and bills of quantities and benchmarked against recent bid prices for similar airport pavement works in the Caribbean, making them realistic at the time of appraisal.

The contingency provisions were adequate for a project of this size and complexity. The planned disbursement profile—first disbursement within 10 months of Board approval and terminal disbursement by December 2020—was reasonable for a single large civil works contract and a well-prepared project. Borrower contribution was clearly defined, feasible given Barbados’ fiscal space, and appropriately allocated to project management, goods procurement, and supervision costs.

The 24-month implementation schedule, including phasing of works to minimize disruption of airport operations, was realistic. While counterpart funding ultimately increased by 84 percent due to COVID-19 disruptions, supply chain issues, and increased pavement quantities, these were external shocks rather than weaknesses in the original design. Overall, the PCR’s assessment of the appropriateness of project cost, financing, disbursement plan, and schedule at design is validated.

Project Cost

TABLE 2: SUMMARY OF ACTUAL PROJECT COSTS AND FINANCING

Item	Actual Project Cost and Financing			Appraisal Estimate	Variance (Actual - Appraisal) ^{1/}	
	CDB	Counterpart	Total		(\$'000)	(%)
	(\$'000)					
1. Engineering & Construction Service	0	4,116	4,116	1,555	2,561	165
2. Goods	0	75	75	255	-180	-71
3. Infrastructure Works	40,269	23,900	64,169	43,099	21,070	49
4. Institutional Strengthening	120	0	120	142	-22	-15
5. Project Management	0	293	293	1,335	-1,042	-78
Base Cost	40,389	28,384	68,773	46,386	22,387	48
Physical Contingencies	0	0	0	4,487	-4,487	-100
Price Contingencies	0	0	0	1,333	-1,333	-100
IDC & Commitment Fee ⁷	3,474	0	3,474	5,492	-2,018	-37
Total Cost	43,863	28,384	72,247	57,697	14,550	25
Composition (%)	61	39	100	-	-	-

Disbursements

CDB loan disbursement reached **100% of the approved USD 40.39 mn**, with most disbursements processed between late 2019 and 2021. The Terminal Disbursement Date (TDD) of **December 31, 2020** was maintained, and final claims were submitted and cleared before that date, even though physical completion extended into 2021–2022.

Validation: The disbursement schedule prepared at appraisal was **realistic and appropriate** for a single large civil works project. Actual timing differences were caused by COVID-19-related slowdowns rather than weak planning. PCR information is **validated**.

Borrower Contribution

Borrower contribution increased substantially, from **USD 17.31 mn at appraisal to USD 31.86 mn (+84%)**, to cover higher costs of labour, equipment, and materials as well as expanded pavement quantities and COVID-19 contract variations.

Validation: The counterpart funding arrangement at design was **appropriate and feasible**, and the Borrower demonstrated commitment by fully meeting and exceeding its share despite fiscal constraints during the pandemic. PCR reporting is **validated**.

Conformance to Schedule

The appraisal assumed a 24-month implementation period, with completion by **December 2020**. Substantial completion was achieved in **August 2021** and final completion in **October 2022** (≈ 20 months delay).

Validation: The schedule at design was **appropriate** for the scope of work. Delays were due to external shocks — COVID-19 curfews, quarantine requirements, travel restrictions for overseas paving crews, and ashfall from the La Soufrière eruption — not to poor design or unrealistic scheduling. PCR's account is **validated**.

⁷ CDB Appraisal Document, Table ___:

Implementation Arrangements, Conditions and Covenants, Related TA, Procurement and Consultant and/or Contractor Performance

Implementation Arrangements

At design, implementation was entrusted to **GAIA Inc.** with a dedicated **Project Management Unit (PMU)** supported by an **engineering supervision consultant** and overseen by CDB. This arrangement was appropriate, given GAIA's institutional capacity and previous experience with infrastructure projects.

Validation: the arrangements were clear, realistic, and consistent with good practice at entry.

Conditions and Covenants

All conditions precedent were clearly specified at appraisal, covering loan effectiveness, fiduciary arrangements, and safeguards. They were satisfied prior to first disbursement, and covenants were monitored through supervision reports.

Validation: conditions were relevant, achievable, and provided a robust framework for compliance.

Related TA

The project included institutional strengthening TA for preparation of a Sustainability Management Plan and FBO Policy. These were well-chosen and aligned with GAIA's operational needs and the objective of enhancing institutional capacity.

Validation: TA design was appropriate. Non-completion of the FBO consultancy was due to counterpart funding shortages, not a design weakness.

Procurement

Procurement arrangements were based on **CDB guidelines** and International Competitive Bidding (ICB) for the works contract, which was awarded to the lowest evaluated responsive bidder.

Validation: procurement planning and methods were appropriate at design.

Consultant and Contractor Performance

Consultant Performance:

The engineering supervision consultant was selected via QCBS and provided comprehensive contract administration, quality assurance, and stakeholder coordination.

Validation: the TOR and procurement method for the consultant were appropriate at design and ensured strong oversight capacity.

Contractor Performance:

The works contractor was selected through ICB and demonstrated capacity to mobilise resources and adjust to COVID-19 restrictions.

Validation: contractor procurement and contract form (FIDIC) were suitable for the project's complexity and risks.

Monitoring and Evaluation Design, Implementation and Utilisation

The Results Framework included clear outputs (runway area, apron area, fencing length, sustainability plan, FBO policy) and outcome indicators (pavement quality index, aircraft movements, energy savings). At design, the M&E plan was robust and consistent with CDB practice, with reporting mechanisms through quarterly Project Coordinator reports and supervision missions.

Validation: While the framework was well designed, it relied on counterpart-funded activities (LED retrofitting, FBO policy) for some outcome indicators, which introduced a risk of incomplete

measurement. Future projects should incorporate risk-adjusted monitoring plans to ensure all intended results can be tracked even if counterpart components are delayed or cancelled.

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATION)

4.01 The following are the ratings of the PCR and PSRs over the project implementation period, and the Evaluator’s ratings based on the data reviewed.

Relevance

PCR Rating: 4.0 – Highly Satisfactory

PCR Justification: The project was fully aligned with GAIA’s Master Plan, Barbados’ national priorities, CDB’s strategic objectives and corporate priorities. The infrastructure design was technically robust, avoided operational disruption, integrated institutional strengthening and climate resilience aspects.

OIE Validation:

We validate the PCR rating of **Highly Satisfactory (4.0)**. The project addressed a critical safety and capacity gap for GAIA, was fully aligned with the Barbados CSP (2015–2018) and with CDB’s corporate priority of strengthening climate-resilient infrastructure, and incorporated energy efficiency and sustainability elements. The logic chain from activities to outcomes was clear and appropriate. Design trade-offs (e.g., inclusion of FBO policy and energy-efficiency elements) were forward-looking and consistent with good practice, even if later affected by counterpart resource constraints.

Effectiveness

PCR Rating: 3.0 – Satisfactory

PCR Justification: Most outputs and outcomes were achieved — runway, taxiways, and apron works were completed, car park and roads rehabilitated, sustainability plan prepared. Two outputs (FBO policy and LED lighting retrofit) were not achieved due to lack of counterpart funding and global supply challenges. The project contributed to improved operational capacity and tourism competitiveness.

OIE Validation:

We validate the PCR’s **Satisfactory (3.0) rating**. Based on evidence provided in the PCR and corroborated by supervision reports and the Borrower’s completion data, OIE confirms that the project largely achieved, and in several cases exceeded, its planned physical outputs. Of the nine output indicators, seven were fully achieved. However, non-achievement of the FBO policy and LED component left part of the institutional and energy-saving objectives unmet, lowering the outcome achievement. The overall development objective — improving airside safety, capacity, and resilience — was still substantially met, supporting the “Satisfactory” rating. The quality and scale of completed infrastructure were validated through engineering supervision reports, site completion certificates, and GAIA Inc. acceptance records.

Output Indicator	Appraisal Target	Actual Achievement	Achievement Status
Runway rehabilitated	105,000 m ²	183,027 m ²	Exceeded (174%)
Taxiways rehabilitated	143,950 m ²	164,305 m ²	Exceeded (114%)
East Apron expansion	10,295 m ²	16,805 m ²	Exceeded (163%)
Apron rehabilitated	37,000 m ²	69,075 m ²	Exceeded (187%)
New South Apron and taxiway constructed	Yes	Yes (67,850 m ²)	Achieved
Car park and landside road works	8,200 m ²	8,917 m ²	Achieved
Fencing replaced	9,000 m	7,474 m	Partially achieved (83%)
Sustainability Management Plan	Yes	Yes (2022)	Achieved
FBO Policy and Guidelines	Yes	No	Not achieved

Efficiency

PCR Rating: 3.0 – Satisfactory

PCR Justification: Despite a 25% increase in total cost and ≈20-month delay in physical completion, the project maintained economic viability, with a re-estimated ERR of 12% (above the 10–12% benchmark). COVID-19 disruptions and supply chain challenges were the main drivers of cost escalation and delay.

OIE Validation:

We validate the PCR's **Satisfactory (3.0)** rating. The cost increase was primarily due to external shocks, not cost control failure. Counterpart resources were mobilised on time, and CDB funds were fully disbursed without extension of the TDD. The ERR remaining above the threshold confirms the project remained economically justified. Implementation arrangements ensured timely decision-making and avoided more severe delays despite pandemic conditions.

Sustainability

PCR Rating: 3.0 – Satisfactory

PCR Justification: GAIA has the technical and financial capacity to maintain the rehabilitated infrastructure. Institutional sustainability was strengthened through the Sustainability Management Plan. Future PPP arrangements will need to ensure robust Operation and Maintenance funding. Risks remain from future external shocks (pandemics, extreme weather events).

OIE Validation:

We validate the **PCR's Satisfactory (3.0)** rating. GAIA has demonstrated commitment to maintenance, and the infrastructure is climate-resilient. The main risks to sustainability relate to macroeconomic and tourism demand shocks, not design weaknesses. The pending development of the FBO policy remains a medium-term institutional priority, but does not undermine the overall sustainability of the investment.

Borrower and EA Performance

PCR Rating: Satisfactory

PCR Justification: GAIA Inc. was proactive in project implementation, coordinated stakeholders effectively (including during COVID-19), complied with CDB policies, and met reporting requirements. Counterpart funding was mobilised in a timely manner, despite fiscal pressures.

OIE Validation:

We validate the rating of **Satisfactory**. GAIA's PMU demonstrated strong commitment and technical competence, maintaining momentum even under pandemic restrictions and coordinating with contractors and government agencies to secure exemptions for critical works. Timely processing of payments and effective resolution of issues with the contractor contributed to avoiding further delays. The only shortcoming was the inability to mobilise sufficient counterpart resources to finance the FBO consultancy and goods procurement, which reduced the scope of institutional strengthening outputs. Nevertheless, overall borrower and EA performance was consistent with expectations for a project of this complexity.

CDB Performance

PCR Rating: Satisfactory

PCR Justification: CDB responded promptly to GAIA Inc.'s requests for clarification, undertook regular meetings and site visits, and collaborated closely to resolve issues.

OIE Validation:

We validate the rating of **Satisfactory**. CDB supervision missions and virtual engagement during the pandemic were timely and supportive. Fiduciary and safeguard oversight was adequate, and procurement

processes were reviewed and cleared promptly. A stronger focus on early risk identification (e.g., potential counterpart funding gaps) could have further mitigated the risk of non-execution of the FBO component, but this shortcoming does not materially affect the overall performance assessment.

5. OVERALL PERFORMANCE RATING

Overall Performance Rating

5.01 The PCR rates the overall performance of the project as **3.25 – Satisfactory**. The Evaluator rates the overall performance of the project as **3.25 – Satisfactory (Validated)**.

The rating is based on the composite aggregate of the core performance criteria — **Relevance (4.0 – Highly Satisfactory), Effectiveness (3.0 – Satisfactory), Efficiency (3.0 – Satisfactory), and Sustainability (3.0 – Satisfactory)** — each of which was independently reviewed and validated. The aggregate score confirms that the project was highly relevant, largely achieved its outcomes, remained economically viable despite external shocks, and is likely to be sustained with GAIA’s continued institutional commitment.

Lessons

5.02 The PCR identified the (number) lessons learned from implementation of the project as:

- (i) **Early and detailed stakeholder consultation** is critical for smooth implementation — consultations with airlines and regulators before the works were instrumental in minimizing operational disruption.
- (ii) **Scheduling works to minimize disruption** is a key success factor for airside projects — all works were executed outside of peak aircraft movement periods.
- (iii) **Safety and coordination protocols** are essential in an operational airport environment — weekly coordination meetings with Air Traffic Control were crucial for safety during runway rehabilitation.
- (iv) **Robust procurement processes** ensure resilience — the contractor’s technical and financial capacity enabled effective response to COVID-19 and other disruptions.
- (v) **Continuous engagement on institutional arrangements** is needed - discussions on planned PPP arrangement should be initiated early to safeguard project sustainability and explore future CDB involvement.

5.03 The Evaluator notes other lessons learned from experiences of other MDBs relevant to this project:

- (i) **Early risk scenario planning:** Future projects should include stress-tested sensitivity analysis for pandemics, supply chain shocks, and major cost escalations, as recommended by MDB good practice post-COVID-19.
- (ii) **Counterpart funding risk mitigation:** Where critical outputs depend on counterpart resources, financing assurance or contingency mechanisms should be secured at appraisal.
- (iii) **Results framework design:** Indicators linked to counterpart-funded activities should include fallback measurement plans to avoid data gaps for outcome evaluation.
- (iv) **Institutional capacity strengthening:** MDBs increasingly integrate sustainability management into core project scope — future operations could mainstream institutional strengthening components as loan-financed rather than counterpart-financed to ensure delivery.

6. RATINGS:

Criteria	PCR⁸	OIE Review	Reason, if any, for Disagreement/Comments
<i>Relevance</i>	HS (4.0)	HS (4.0)	
<i>Effectiveness</i>	S (3.0)	S (3.0)	
<i>Efficiency</i>	S (3.0)	S (3.0)	
<i>Sustainability</i>	S (3.0)	S (3.0)	
Composite (Aggregate) Performance Rating	S (3.25)	S (3.25)	
<i>Borrower & EA Performance</i>	S	S	
<i>CDB Performance</i>	S	S	
<i>Quality of PCR</i>	-	S	The PCR was clear, evidence-based, and followed PAS structure, though lessons could have been more forward-looking.

7. COMMENTS ON PCR QUALITY

The Evaluator rates the PCR quality as 3.0 – Satisfactory, based on the following:

(a) Clarity and conciseness:

The PCR was clearly structured, followed the PAS template, and presented information in a concise manner. Tables and annexes (e.g., Annex 4 – Project Costs and Financing) were well-organized and easy to interpret.

(b) Quality and completeness of evidence and analysis to support scores and ratings:

The PCR provided a solid evidence base, including updated ERR calculations, detailed output completion data, and cost breakdowns. The analysis was generally robust and consistent with the evidence presented.

(c) Identification of exogenous factors affecting project implementation and results:

The PCR thoroughly documented the impact of COVID-19, supply chain disruptions, and the La Soufrière volcanic eruption on implementation timelines and costs, allowing a fair assessment of efficiency and effectiveness.

(d) Lessons of experience identified:

The PCR identified several important lessons, including stakeholder engagement, safety coordination, and procurement robustness. These were relevant and actionable but could have been strengthened by addressing systemic issues such as counterpart funding risk management and contingency planning for extreme shocks.

(e) Adequacy of evidence provided in the PCR and data provided by Operations Staff to support the validation process:

The evidence was adequate for independent validation. Operations staff provided supplementary data, enabling a comprehensive review.

Overall Assessment:

The PCR quality is rated **Satisfactory (3.0)**. It was a well-prepared and evidence-based document that enabled OIE to validate ratings with confidence. Minor improvements could include deeper analysis of risk management lessons and explicit discussion of financing strategy trade-offs.

⁸ PPES scores and ratings used in PCR and PSRs to be converted to PAS 2013 scores and ratings, using the equivalence matrix in the relevant PAS 2013 Manual (Public Sector Investment Lending and TA; PBL; CSP).

8. DATA SOURCES FOR VALIDATION

CDB Appraisal Document: Board Paper **BD 87/18** and BD 87/18 Corr.1 – *Rehabilitation Project – GAIA, Barbados*

PCR: *Project Completion Report – Grantley Adams International Airport Pavement Rehabilitation and Expansion* approved **March 17, 2025**

Registry Files: Volumes 1–3 covering procurement, disbursements, and correspondence (as reviewed in GAIA project file)

Loan Agreement: Loan No. **7/SFR-OR-BAR**, dated **December 31, 2018**

PSRs: Project Supervision Reports from **2019–2023**, including updated IP ratings, disbursement records, and output indicators

Communication Material: Emails, aide-memoires, and internal notes from CDB Operations and Portfolio Management staff confirming project milestones, counterpart funding adjustments, and contractor performance

9. RECOMMENDATIONS FOR OIE FOLLOW-UP

Based on the validation of the PCR, OIE recommends the following actions to strengthen institutional learning and ensure sustainability of results:

1. **Monitor completion of outstanding counterpart-funded activities:**
 - Follow up with GAIA Inc. and GOBD on the development of the **FBO Policy and Guidelines**, which remain critical to maximising the economic potential of general aviation services and ensuring commercial viability.
 - Encourage GAIA Inc. to revisit procurement of LED apron lighting retrofitting or seek alternative financing mechanisms to achieve the intended energy efficiency and cost savings outcomes.
2. **Institutionalise risk scenario planning:**
 - Integrate **pandemic, supply chain, and price escalation risk scenarios** systematically into project appraisal and supervision for future airport and large civil works projects.
 - Collaborate with Portfolio Management to update CDB’s internal guidance to include “stress-tested” cost and schedule buffers.
3. **Strengthen counterpart funding assurance at entry:**
 - Recommend that Operations require confirmation of **secured counterpart funding** (or contingency arrangements) for critical outputs before loan approval or effectiveness, reducing the risk of scope reductions.
4. **Knowledge sharing:**
 - Document the experience of GAIA’s PMU in managing large-scale civil works under pandemic conditions as a **good practice case study** for other Borrowing Member Countries (BMCs).
 - Share lessons on stakeholder coordination, night-time works scheduling, and safety protocols with other regional airports and CDB clients.
5. **Results framework refinement:**
 - Ensure that future project RFs include **fallback indicators** or proxy measures for outputs dependent on counterpart funding, to avoid data gaps at completion and facilitate a full effectiveness assessment.

MANAGEMENT RESPONSE



MEMORANDUM

To: Strategic Advisory Team
thru Director, Projects Department

Subject: Management Response to Office of Independent Evaluation (OIE) Project Completion Validation Report – Grantley Adams International Airport Pavement Rehabilitation and Expansion Project – Barbados (7/SFR-OR-BAR)

From: Division Chief (Ag.)
Economic Infrastructure Division (EID)

Date: February 6, 2026

The Project Completion Report (PCR) team for the captioned project would like to thank the Office of Independent Evaluation (OIE) for its assessment and findings presented in the Project Completion Validation Report (PCVR). We are pleased that there is general agreement with the findings of the PCVR and the PCR assessments.

The PCVR repeatedly refers to the FBO policy under the Institutional Strengthening Component in its recommendations and the unavailability of counterpart resources to fund this work. It should be noted that the Financing Plan in the Appraisal Report shows this was to have been Bank funded. The PCVR also notes that the change to runway LED lighting was to have been undertaken with counterpart funding and this was not done, recommending strengthened counterpart funding assurance at appraisal. The appraisal process rigorously assesses the performance of borrowers and the availability of counterpart funds for implementation and their ability to repay. Grantley Adams International Airport Inc (GAIA Inc.) wrote to CDB emphasising the impact of the unprecedented COVID-19 impact on their finances. While risks around supply chain disruption are even more closely examined since the COVID-19 pandemic, it is not clear the references to scenario planning around pandemics are relevant or realistic for typical infrastructure projects. Minor observations made include the following:

- (a) The PCVR states that the Appraisal report identified the following as Operational Risks (page 4): Inadequate maintenance post construction and premature pavement deterioration; insufficient capacity to manage Code F aircraft safely; and vulnerability to extreme weather event sand natural disasters. None of these were identified as significant risks because (a) the design life and satisfactory historical performance of GAIA pavements; (b) Code F aircraft don't necessarily affect pavement durability, and the project scope specifically included addressing the pavement geometry required for Code F aircraft.
- (b) The definition of the start of Implementation used in the PCVR varies from the definition used in the Annual Review of the Performance of the Portfolio Under Implementation. The PCVR states "Implementation begins with satisfaction of conditions precedent", whereas the ARPP states "Project Implementation Start-up – The project enters the portfolio on the date the Loan Agreement is signed."

- (c) Corrections required to the First Disbursement Date at Appraisal, which was December 31, 2018, versus 2019 Q2 as stated in the PCVR.
- (d) It is not clear that the recommendation to “Collaborate with Portfolio Management to update CDB’s internal guidance to include “stress-tested” cost and schedule buffers” is made or phrased in the context of CDB’s organisational structure.
- (e) Regarding the recommendations on sharing lessons on night-time works scheduling, etc., these are routine for similar projects. However, it should be noted that CDB has started a story-mining exercise to share project success stories more selectively and effectively.

We acknowledge the well-established lessons around stakeholder engagement, safety, procurement, scheduling and institutional arrangements. The restatement of these lessons continues to be valuable to aid in learning by team members.



William M. Ashby
Division Chief (Ag.)
Economic Infrastructure Division



L. O'Reilly Lewis
Director, Projects Department

WMA/VNB:kd

cc. Mr. Roberto La Rovere, Head of Evaluation, Office of Independent Evaluation

LOGICAL FRAMEWORK MATRIX (Appraisal Document Page)

Output	Indicator	Baseline	Target	Results	Data Sources, Reporting Mechanisms and Report Frequency
1 Sustainability Management Plan completed	1.1 Consultant's Final Report accepted by GAIA Inc. (Yes/No)	N; 26/07/2018	Y; 31/12/2019	Completed Jan 2022	Project Coordinator (PC) reports
2 FBO policy and guidelines completed	2.1 Consultant's Final Report accepted by GAIA Inc. (Yes/No)	N; 26/07/2018	Y; 31/12/2019	Removed from project	PC reports
3 Rehabilitated and expanded airside and landside pavements	3.1 Car Park and landside road works completed (Square Meters)	0; 26/07/2018	8,200; 31/12/2019	8,917 Completed 31/05/2021	Engineering Supervision consultants' Progress Reports
	3.2 Runway rehabilitated (Square Meters)	0; 26/07/2018	105,000; 31/12/2019	183,027 Completed 23/04/2021	Engineering Supervision Consultants' Progress Reports
	3.3 East Apron expansion completed (Square Meters)	0; 26/07/2018	10,295; 31/12/2019	16,805 Completed 18/08/2021	Engineering Supervision consultants' Progress Reports
	3.4 Apron rehabilitated (Square Meters)	0; 26/07/2018	37,000; 31/12/2019	69,075 Completed 18/01/2021	Engineering Supervision Consultants' Progress Reports
	3.5 Taxiways rehabilitated (Square Meters)	0; 26/07/2018	143,950; 31/12/2019	164,305 Completed 07/06/2021	Engineering Supervision Consultants' Progress Reports
	3.6 Fencing replaced (m) (#)	0; 26/07/2018	9,000; 31/12/2019	7,474 Completed 10/09/2020	PC Reports
	3.7 Car Park EV charging stations installed and operational (#)	0; 26/07/2018	4; 31/12/2019	Completed Jan 2022	PC Reports
	3.8 New South Apron and taxiway constructed (Yes/No)	N; 26/07/2018	Y; 31/12/2019	67,850 Completed 07/07/2021	Engineering Supervision Consultants' Progress Reports
4 Airfield lighting and electrical installation upgraded	4.1 Airfield substation upgraded (Yes/No)	N; 26/07/2018	Y; 31/12/2019	Not done	PC reports
	4.2 Existing apron light towers retrofitted with LEDs (#)	0; 26/07/2018	16; 31/12/2019	Not done	PC Reports
	4.3 Airfield lights replaced with LEDs (#)	0; 26/07/2018	480; 31/12/2019	639 Completed	Engineering supervision consultant's Progress Reports

LOGICAL FRAMEWORK MATRIX (Appraisal Document Page)

Output	Indicator	Baseline	Target	Results	Data Sources, Reporting Mechanisms and Report Frequency
	4.4 New apron LED light towers installed (#)	0; 26/07/2018	3; 31/12/2019	3 Completed 18/08/2021	Engineering supervision consultant's Progress Reports

PCR: PROJECT PERFORMANCE EVALUATION

Criteria	Appraisal		Completion	
	Score	Rating	Score	Rating
Relevance	4.00	Highly Satisfactory	4.00	Highly Satisfactory
Effectiveness	4.00	Highly Satisfactory	3.00	Satisfactory
Efficiency	3.00	Satisfactory	3.00	Satisfactory
Sustainability	4.00	Highly Satisfactory	3.00	Satisfactory
Overall	3.75	Highly Satisfactory	3.25	Satisfactory

CDB LOAN CONDITIONS – NOT MET OR PARTIALLY MET

Reference	Critical Conditions	Compliance	Comments
Loan Agreement 7/SFR-OR-BAR	Establishment of a Project Implementation Unit (PIU) within GAIA Inc.	Met	GAIA Inc. had a strong PMU that successfully managed implementation; no delays were attributed to project management.
Loan Agreement 7/SFR-OR-BAR	Submission of quarterly progress and disbursement reports	Met	Reports were submitted regularly; CDB rated Borrower’s reporting as satisfactory.
Loan Agreement 7/SFR-OR-BAR	Compliance with CDB’s procurement guidelines	Met	All procurements were completed in accordance with CDB procedures. Contractor and consultants were competitively selected and performed well.
Loan Agreement 7/SFR-OR-BAR	Provision of counterpart funding	Partially Met	Counterpart funding was provided, but the FBO consultancy and some goods could not be financed due to resource constraints.
Loan Agreement 7/SFR-OR-BAR	Environmental and social safeguard compliance	Met	All environmental and social issues were addressed in a timely manner; no major incidents were recorded.
Loan Agreement 7/SFR-OR-BAR	Submission of audited project financial statements	Met	Project audits were completed and accepted by CDB without qualification.
Loan Agreement 7/SFR-OR-BAR	Implementation of the Sustainability Management Plan	Met	Consultancy completed; recommendations adopted by GAIA Inc. in 2022.
Loan Agreement 7/SFR-OR-BAR	Completion of the FBO Policy and Guidelines Consultancy	Not Met	Consultancy was dropped due to lack of counterpart funding and market cost escalation during COVID-19.

OTHER LOAN CONDITIONS – NOT MET OR PARTIALLY MET

Reference	Critical Conditions	Compliance	Comments
Loan Agreement 7/SFR-OR-BAR	Provision of counterpart funds to finance all components, including the FBO Policy and Guidelines consultancy and the procurement of goods (LED lights and charging stations)	Partially Met	Counterpart funding was increased significantly for infrastructure works but was insufficient to complete the FBO consultancy and some goods procurement due to cost escalation and budget reprioritization during COVID-19.
Loan Agreement 7/SFR-OR-BAR	Completion of the FBO Policy and Guidelines consultancy	Not Met	Consultancy was not undertaken. Proposals received exceeded the available counterpart funding; GAIA Inc. intends to implement this under a future phase or PPP framework.
Loan Agreement 7/SFR-OR-BAR	Implementation of the LED retrofitting and airfield electrical upgrades	Partially Met	Only partial completion. Goods were not procured due to price volatility and supply chain disruption during COVID-19; energy-saving outcomes were therefore not achieved under the project.

CARIBBEAN DEVELOPMENT BANK



VALIDATION OF PROJECT COMPLETION REPORT

ON

SIXTH POWER PROJECT- BELIZE

OFFICE OF INDEPENDENT EVALUATION (OIE)

LOAN NO.: 21/OR-BZE

20 January 2026

PRN NO.: 3762

Head Office of Independent Evaluation	-	Roberto La Rovere
Evaluator	-	Katherine Liakos
Quality Control Reviewers	-	Charmaine Gill-Evans

CURRENCY EQUIVALENT

Dollars (\$) throughout refer to United States dollars (USD) unless otherwise stated.

United States Dollars (USD) 1.00 = Belize Dollars (BZD) 2.00
BZD1.00 = USD 0.50

ABBREVIATIONS

BEL	-	Belize Electricity Limited
BNEPF	-	Belize's National Energy Policy Framework
BZD	-	Belize Dollars
CDB	-	Caribbean Development Bank
CGA	-	Country Gender Assessment
COP	-	Cost of Power
CPA	-	Country Poverty Assessment
CSP	-	Country Strategy Paper
DG	-	Distributed Generation
ERR	-	Economic Rate of Return
GDP	-	Gross Domestic Product
GOBZ	-	Government of Belize
HDI	-	Human Development Index
HDR	-	Human Development Report
ICB	-	International Competitive Bidding
ID	-	Institutional Development
kV	-	kilovolt
MDG	-	Millenium Development Goal
MOHD	-	Ministry of Housing and Development
MVA	-	Megavolt Ampere
mn	-	million
N/A	-	Not Applicable
PAS	-	Performance Assessment Score
PPP	-	Purchasing Power Parity
PUC	-	Public Utilities Commission
RE	-	Renewable Energy
SAIDI	-	System Average Interruption Duration Index
SAIFI	-	System Average Interruption Frequency Index
TDD	-	Terminal Disbursement Date
UNDP	-	United Nations Development Programme
USD	-	United States Dollars

MEASURES AND EQUIVALENTS

1 metre (m)	=	3.281 feet (ft.)
1 kilometre (km)	=	0.621 mile (mi)
1 square metre (m ²)	=	10.756 square feet (ft ²)
1 square kilometre (km ²)	=	0.386 square mile (mi ²)
1 hectare (ha)	=	2.47 acres (ac)
1 tonne	=	0.98 ton (tn)
1 litre (l)	=	0.22 imperial gallons (ig)
1 cubic metre (m ³)	=	264.172 gallons (gals)
1 millimetre (mm)	=	0.039 inch (in)

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1. BASIC PROJECT DATA SHEET

Project Title	Sixth Power Project (Electricity Upgrade and Expansion) - Belize		
Country	Belize		
Sector	Energy Generation, Distribution and Efficiency		
Loan No.	21/OR-BZE		
Borrower	Belize Electricity Limited		
Implementing/Executing Agency	Belize Electricity Limited		
Disbursements (\$ mn)	CDB LOAN		
	OCR		Total
Loan Amount	\$11.231 mn		\$11.231 mn
Disbursed	\$11.231 mn		\$11.231 mn
Cancelled	0		0
Project Milestones	At Appraisal	Actual	Variance (months)
Board Approval	December 12, 2013	December 12, 2013	0
Loan Agreement signed	July 3, 2014	July 3, 2014	0
Loan Effectiveness ¹		March 13, 2015	-
CDB Loan	At Appraisal	Actual	Variance (months)
First Disbursement Date	May 1, 2014	30 Dec 2015	8 months
Terminal Disbursement Date	31 December 2016	30 June 2022	66 months
TDD Extensions (number)	-	4	
Project Cost and Financing (USD mn)	At Appraisal	Actual	Variance (mn)
CDB Loan	11.231	11.231	0
CDB Grant	0	0	0
Other Loan	0	0	0
Counterpart	3.98	13.38	9.402
Total	15.211	24,613,791	
Terms	Interest Rate	Repayment	Grace Period
CDB Loan	3.95% p.a	12	3
Other Loan	-	-	-
Implementation	At Appraisal	Actual	Variance (months)
Start Date ²	May 1, 2014	March 13, 2015	
Completion Date	December 31, 2016	June 30, 2022	66 months
Implementation Period (years)	-	10.4	
Economic Rate of Return (%)	At Appraisal	PCR	PCVR
Original Loan	19%	15%	-
Additional Loan	-	-	-

¹ Date Conditions to First Disbursement satisfied.

² Implementation begins with satisfaction of conditions precedent

2. PROJECT DESCRIPTION

Rationale (context at appraisal)

By letter dated October 28, 2013, Belize Electricity Limited (BEL), a public company limited by shares and majority-owned by the Government of Belize (GOBZ), requested financing from the Caribbean Development Bank (CDB) for capital works aimed at upgrading and reinforcing sections of its sub-transmission and distribution systems. In addition, technical assistance was sought for the financing of consultancy services to undertake a study to determine the feasibility of electricity supply to three load centres via submarine cable.

Over the years, it had been necessary for BEL to systematically upgrade its sub-transmission and distribution systems to address the issue of operational inefficiency, which was manifested by relatively high technical losses, and occasioned by increasing load from rapid physical development in some geographically remote load centres. At the time of appraisal, much of the existing infrastructure in the Project areas was either at, or nearing, its electrical and thermal loading capacity limits and so would not have been able to accommodate the anticipated increased demand. This situation was further exacerbated, in some cases, by infrastructure that was prone to failure because of its age.

It was essential for BEL to complete the upgrades and re-configurations to sections of the sub-transmission and distribution systems to facilitate growth in demand with an acceptable level of reliability and to also prepare the system for the interconnection of distributed generation (DG) from renewable energy (RE) sources. Additionally, given the importance of a reliable electricity service in supporting economic activity, it was necessary for BEL to make the investment in system upgrades so as not to stymie growth. Such system upgrades and reconfigurations were guided by studies for 20-year planning horizons³. The Project sought to address these issues by implementing the medium-term recommendations of the pertinent study during the period 2014 – 2016.

The project was based on the need for improvement by BEL in the following areas:

1. reliability of supply and business continuity;
2. power loss reduction; and
3. system upgrade and expansion to meet the growth in electricity demand.

Expected Impact

To contribute to the social and economic development of Belize through the provision of a reliable and efficient electricity supply.

Objectives or Expected Outcomes

The outcome of the Project will be improved reliability of BEL's sub-transmission and distribution systems delivering quality power supply to customers in an efficient manner, with sufficient capacity that caters to increased projected demand for electricity in four major load centres across Belize to 2030. The Project will contribute to the social and economic development of Belize. Under the Project, sections of the sub-transmission and distribution power systems of BEL will be upgraded, expanded and/or reinforced.

³ The study was the BEL Transmission Expansion Study, November 22, 2010 Siemens Energy Inc. (the Study).

Outcome targets:

- Reduction in System Average Interruption Duration Index (SAIDI)⁴ from 22.8 hours to 20 hours by 2017.
- Reduction in System Average Interruption Frequency Index (SAIFI)⁵ from 17.6 times to 13 times by 2017.
- Reduction in system losses from 12.49% to 10.96% by 2017.

Components and/or Outputs

The Project components include:

The following project components were planned to be implemented.

Name: Land

Description: Cost of parcels of land to site the Chan Chen, Banak and Palloti Substations.

Name: Infrastructure Works

Description: Upgrade of sections of the sub-transmission and distribution system across Belize, namely, Placencia, Belize City, Ladyville, San Pedro Ambergris Caye Expansion, Corozal and Orange Walk, and Belmopan.

Name: Engineering and Construction-related Services

Description: Services for the design and construction supervision of the works.

Name: Project Management

Description: Services (cost of time, administrative and general expenses for BEL personnel assigned) to manage the implementation of the Project.

Name: Technical Assistance

Description: Feasibility Studies to determine the economic and technical feasibility of three proposed submarine cable projects: Supply to Caye Caulker from San Pedro Ambergris Caye, additional supply to San Pedro Ambergris Caye from mainland Belize and the replacement of the old submarine cable to Placencia from mainland Belize.

Output targets:

- Six load centres across Belize upgraded and reinforced by December 31, 2016.
- Feasibility Study completed, and recommendations adopted by December 31, 2016 (for feasibility of installation of submarine cables to San Pedro Ambergris Caye, Caye Caulker and Placencia).

Provision of Inputs

The project cost for CDB was \$11,231,000 which was financed from CDB's Equity and Market Resources. Physical Contingencies of 10% on materials, 5% on labour, and 0% on materials already funded by BEL were included, as well as price Contingencies of 3% p.a. on foreign and local costs, exclusive of items already funded by BEL.

⁴ The average interruption duration on the system per customer served per year defined as the sum of customer interruption durations ÷ total number of customers.

⁵ The average number of interruptions experienced per customer served per year defined as the total number of customer interruptions ÷ total number of customers.

The project was financed by:

- a. a loan to GOBZ, equivalent to USD11,231,000 from CDB's SFR resources, representing 54.4% of project cost; and
- b. counterpart funding of USD13,382,791 representing 45.6% of project costs, to finance project management and reporting.

A summary of project costs and financing at appraisal and at project closure is provided below in Table 1, and in more detail in Table 2.

Table 1: Project Costs: Financing Plan vs Actuals (USD '000)

Component	CDB			Counterpart		
	Planned USD	Actual USD	CDB % Difference	Planned USD	Actual USD	Counterpart % Difference
Base Costs	\$9,798,500	\$11,231,000	15%	\$2,845,000	12,397,791	336%
Contingency	\$1,432,500	\$0.00	-100%	\$148,500	0	-100%
Finance Costs				\$985,000	\$985,000	0%
Total Project Cost	\$11,231,000	\$11,231,000	0%	\$3,978,500	13,382,791	236%
Total Financing	\$11,231,000	\$11,231,000	0%	\$3,978,500	13,382,791	236%
Percentage Financing	74 %	46%		26%	54%	

Implementation Arrangements

The Belize Electricity Limited was responsible for project implementation. The project was implemented over a period of 125 months from loan effectiveness.

Project Management:

According to the PCR, BEL has a strong Project Management Unit, however, there was poor reporting in the later stages of the project (post 2018).

Participation of Beneficiaries and Stakeholders:

The PCR notes that BEL was effective in liaising with different stakeholders and agencies in order to achieve the outcomes of the project. Transmission upgrades required planned shutdowns which required deliberate engagement with stakeholders for successful implementation with minimal disruption.

Public support was essential for the ongoing success of this community-facing infrastructure project. Continuous engagement helped address any community concerns, maintained public safety and fostered a positive perception of the project.

Identification of Risks and Mitigation Measures⁶

Several risks were identified at appraisal stage related to project implementation and operation, though the overall risk profile was considered to be moderate. These risks and mitigation measures are captured in the table below:

⁶ Appraisal Document Page 19.

Risk Type	Description	Risk Classification	Mitigation Measures
Implementation	<p><i>Natural disaster and adverse weather conditions.</i></p> <p>1. Adverse weather conditions could delay Project implementation, especially for the foundation works associated with substation construction.</p>	Moderate	<p>Contractors and BEL will be required to maintain adequate insurance coverage during the construction stage to cover loss due to natural disasters. Both the contractors and BEL have experience working in unfavourable marshlands which would be similar to ground conditions brought about by adverse weather. Given that there is dependency among some Project components, it will be necessary to carefully manage implementation during such events.</p>
Operational	<p>2. Natural disaster could cause disruption to the operations of BEL as its corporate headquarters is located in Belize City with significant exposure to hurricane and flood hazards.</p>	Moderate	<p>BEL has a Business Continuity Plan that includes an off-site disaster recovery centre in Belmopan which provides for the functioning of its core back-office functions using the company's virtual information technology system.</p>
Operational	<p><i>Oil price Increases.</i></p> <p>Increases in fuel prices would affect the cost of purchased power from CFE in Mexico and also the cost of electricity production by diesel engines, if necessary, at BEL.</p>	High	<p>Since the mid-1990s, the company has been diversifying its electricity sources and GOBZ's strategy for the sector will see increased participation on the supply side by private producers developing renewable energy sources. BEL is actively investigating additional cheaper energy sources. The system reinforcements under the Project will better prepare the electricity grid to receive such power and there will be less dependence on electricity produced by diesel with the increased availability of renewable energy to the electricity grid.</p>
Operational	<p><i>Impact on BEL's cash flow due to variability in COP and regulatory lag.</i></p> <p>Tariffs are set for a four year period based on projections of COP and other value added delivery services. Within that period, on an annual basis, COP is reviewed and BEL is required to submit information to PUC on COP by November of each year so that adjustments can be made, as necessary, by</p>	Moderate	<p>BEL has started to conduct quarterly COP projections. These are shared with PUC and will inform a six month tariff review in order to minimise the annual correction required.</p>

Risk Type	Description	Risk Classification	Mitigation Measures
	January of the following year. However, given the one-year lag, cost recovery may not always be timely. In an increasing oil price environment, this situation can strain BEL's cash flows		
Operational	<i>Interruption in supply of purchased power and associated high costs.</i> BEL has installed a gas turbine with capacity of 22.8 MW which provides a good level of security in emergency situations. In the event that BEL has to operate this or other diesel engines it owns to supplement power supply in emergency situations, operational costs will increase.	Moderate	It is expected that additional IPP and DG will come online in the medium term, and this will mitigate the adverse effects of utilising diesel-based generation in times of emergency. Additionally, even if it is necessary to use diesel-based generation, this situation would not exist for extended periods of time during the life of the Project.
Market/ Macroeconomic	<i>Demand projections not realised should there be a downturn in economic activity.</i>	Moderate	Sensitivity analysis shows the Project is very robust and that if the benefits from loss reduction and reliability are realised, incremental sales would have to decrease by 49% to push the ERR below 12%. The economy would have to become severely depressed to experience such a decline.

In addition, the PCR reported⁷ two additional risks and mitigation actions:

Description	Risk Rating	Action Plan	Follow-up Responsibility	Due Date
Some transmission assets traverse areas which are highly prone to wildfires and fires due to the burning of sugarcane fields.	Moderate	The risk to sections traversing cane fields was identified during the design phase and the line design accounted for this by ensuring the base of the pole is adequately protected. However, in some areas where the fire hazard was not obvious until the outbreak of wildfires, corrective action was taken to apply fire retardant paint at the base of the wooden	BEL	Complete

⁷ CDB Project Completion Report, p32

Description	Risk Rating	Action Plan	Follow-up Responsibility	Due Date
		poles.		
Maintenance of assets	Moderate	BEL to ensure that sufficient funding and resources are allocated for maintenance and asset management.	BEL	Ongoing

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

Lessons incorporated from past projects

CDB has financed five capital power projects in Belize and has worked closely with BEL on each intervention to ensure that lessons of experience are consistently incorporated into project design to improve the delivery and eventual outcomes. BEL has also mainstreamed some of these lessons into their routine operations. For example, all proposed capital works must be closely aligned with one or more of the company's strategic objectives and be justified technically, financially and economically.

The initial design of the project was informed by a BEL Transmission Expansion Study, November 22, 2010 (Siemens Energy Inc.) demonstrating a data-driven and focussed technical approach to the proposed solutions. However, subsequent design changes (to keep up with changing project conditions) were required to ensure that the relevance of the interventions was maintained. For example, for the proposed Placencia upgrades, the area experienced significant load growth during the period of overall project implementation and required greater numbers of distribution transformers to be replaced by the time this workstream was implemented.

Linkage of project to GOBZ development priorities

In GOBZ's Medium-Term Development Strategy for the period 2010-2013, the expansion of electricity is identified as a cross-cutting priority and supporting strategy for the achievement of their medium-term agenda. GOBZ's specific strategy for the energy sector is defined in BNEPF and in the Belize National Sustainable Energy Strategy 2012-2033 (BNSSES) which is part of the Strategic Plan 2012-2017 for the newly established Ministry of Energy, Science and Technology and Public Utilities (MESTPU). MESTPU is mandated to integrate energy, science and technology into national development planning. BNSSES makes recommendations for energy efficiency (EE) and energy conservation (EC) to be improved, with the goal to achieve a minimum reduction in per capita energy intensity of at least 30% by 2033.

Additionally, empowerment of rural communities to participate in income-generating activities, particularly women and young people, as a result of electricity access, was of high priority to GOBZ.

Through this project, the CDB aimed to have the following contribution to country outcomes (key outputs):

Social and Economic Infrastructure

- (i) 39 miles of sub-transmission and distribution lines upgraded; and
- (ii) 5.5 miles of transmission line constructed.

Capacity Building

It was anticipated that the project would bring several benefits to build the capacity of BEL. According to the appraisal report, BEL staff would build more capacity in project management and implementation supervision of an externally-funded project. Planning staff would also benefit from working with the consultants undertaking the feasibility study for the submarine cables.

The appraisal document and results were robust enough to be able to demonstrate those results at the completion of the intervention (had they been achieved). Overall, the design and formulation were adequate to address the problems and needs that were identified in the appraisal report.

Project Outputs

The planned outputs and targets vs achieved results are as follows:

Planned Outputs for Component 1	Achieved Outputs for Component 1
Upgrade of sections of the sub-transmission and distribution system across Belize.	
Target: Six load centres across Belize upgraded and reinforced by December 31, 2016.	Output achieved but not within the initial project timeline.
Comment/Explanation: This Belize City temporary substation was a change from the original plan to supply the new back-up stations of Banak and Pallotti from Ladyville. The new Belize City substation upgrade was 90% complete as of January 2025. Was targeted for a Q2 2025 completion.	
Planned Outputs for Component 2	Achieved Outputs for Component 2
Recommendations on the feasibility of installation of three submarine cables to San Pedro, Caye Caulker and Placencia.	
Target: Feasibility Study completed and recommendations adopted by December 31, 2016	Output achieved, but not within original timeline. The feasibility of installation of submarine cables to Caye Caulker from Ambergris Caye was completed in 2018. The feasibility study for San Pedro, Ambergris Caye was completed. The draft feasibility study for Placencia was completed.

Project Cost, Disbursements, Borrower Contribution and Conformance to Schedule

Project Cost

The Project was estimated to cost \$30.419 mn. Project Costs, Phasing and Financing are given below in table 2. The cost estimates were developed by BEL's System Planning and Engineering Department and are based on engineering designs. The estimates were informed by international competitive bids on material for similar works and quotations for specialised equipment (recent at the time of the appraisal). These were reviewed by CDB staff and found to be acceptable.

BREAKDOWN OF ACTUAL PROJECT COSTS AND FINANCING

Table 2: Project Costs: Financing Plan vs Actuals (USD '000)

Component	CDB			Counterpart		
	Planned USD	Actual USD	CDB % Difference	Planned USD	Actual USD	Counterpart % Difference
1. Capacity Building						
2. Engineering and Construction-related Services				\$759,000	934,445	23%
3. Goods						
4. Infrastructure Works	\$9,198,500	10,631,000	16%	\$1,420,500	10,859,760	665%
5. Institutional Strengthening	\$600,000	600,000	0%	\$38,000	293,971	674%
6. Land				\$68,500	\$68,500	0%
7. Other Project Support Services						
8. Project Management				\$559,000	241,115	-57%
9. Project Preparation						
Base Costs	\$9,798,500	\$11,231,000	15%	\$2,845,000	12,397,791	336%
10. Physical Contingency	\$865,000		-100%	\$60,500		-100%
11. Price Contingency	\$567,500		-100%	\$88,000		-100%
Contingency	\$1,432,500	\$0.00	-100%	\$148,500	0	-100%
12. Commitment Fees				\$121,000	121,000	0%
13. Interest During Implementation				\$864,000	864,000	0%
Finance Costs				\$985,000	\$985,000	0%
Total Project Cost	\$11,231,000	\$11,231,000	0%	\$3,978,500	13,382,791	236%
Total Financing	\$11,231,000	\$11,231,000	0%	\$3,978,500	13,382,791	236%
Percentage Financing	74 %	46%		26%	54%	

Project Financing

The Project was financed by a loan from CDB (the Loan) and counterpart funding from BEL. The Loan was made to BEL and GOBZ provided a guarantee in form and substance acceptable to CDB in respect of the loan. The Loan to BEL was equivalent to USD11.231 mn from CDB's OCR and will be repayable in 12 years after a grace period of 3 years.

Disbursements

Disbursement of the Loan was agreed in accordance with CDB's Disbursement Guidelines (January 2019). The first disbursement was made in 30/12/2015, nine months after the date of eligibility for the first disbursement. After 4 extensions to the terminal distribution date (66 month extension), funds were fully disbursed by CDB to the GOBZ on 30/06/2022, 66 months later than the Original Terminal Disbursement Date of 31/12/2016.

Borrower Contribution

The GOBZ contributed to the Project an amount of thirteen million three hundred and eighty thousand USD (\$13.38 mn) 236% greater than anticipated in the appraisal report.

Conformance to Schedule

There were 78 months from first to terminal disbursement, however although the final disbursement was made in 2022, the construction was not completed until December 2024. The terminal disbursement was 66 months later than anticipated.

Conditions and Covenants, Procurement and Contractor Performance

Implementation Arrangements

CDB's considerable experience in the financing of power projects in Belize and other BMCs provided a sound background for providing implementation support to BEL. The implementation support was provided as part of CDB's project supervision functions, and included:

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

Project Management Unit

A valuable lesson learned from CDB's experience is the importance of assigning a dedicated project team within BEL, comprising individuals with sound technical and managerial skills to oversee the implementation of capital projects. Under the Fourth Power Project, a strong project implementation unit was established and this proved very effective in not only successfully completing the Project, but also in allowing for reduced engineering supervision costs by eliminating the need for a permanent presence of external consultants in country during implementation. With the implementation unit, staff continuity throughout the implementation period was assured and reporting on the Project was exceptional. The Project Management Unit (PMU) was expanded for this Sixth Power Project and, according to the appraisal report, comprised well-trained individuals who would report to the Senior Manager of System

Planning and Engineering through Project Coordinator (PC). The Organisational Structure for PMU was given at Appendix 2.4 of the appraisal report.

Conditions and Covenants

It was agreed that the loan would be repayable over 12 years following a grace period of 3 years, at an interest rate of 3.95% per annum (p.a.) variable.

There was a commitment fee of 1% p.a. on the undisbursed balance of the Loan, commencing from the 60th day after the date of the Loan Agreement.

Procurement

Procurement was conducted in accordance with the Procurement Policy for Projects Financed by CDB and the Procurement Procedures for Projects Financed by CDB (November, 2019).

Other Special Procurement Arrangements (exception to the CDB policy):

A waiver of CDB's Guidelines for Procurement to allow BEL to source substation transformers and breakers from suppliers within the United States of America (USA) in order to maintain standardisation of major equipment. The value of the waiver is approximately USD2.48 mn.

Consultant and Contractor Performance

The PCR noted that multiple contractors and consultants participated in this project. Once appropriately procured and assigned, they performed well.

Monitoring and Evaluation Design, Implementation and Utilisation

Clear monitoring and reporting requirements for the project were outlined in the appraisal report. It was a condition of the loan that the Project Coordinator provide to CDB the reports below, as listed in Appendix 5.8 of the appraisal report:

Implementation	Timing
Progress Report (prepared by the Engineering Team) on the progress of the works.	No later than four weeks after the end of each quarter until construction is completed, commencing with the quarter after the engagement of the consultants.
(b) Quarterly Report (prepared by PC) on the investment cost of the Project	No later than six weeks after the end of each calendar quarter, commencing with the quarter following the assignment.
(c) Completion Report (prepared by the engineering consultants) on the construction of the Project including as built drawings.	No later than three months after the date of issue by the engineering consultants of a certificate of practical completion of the Project.
(d) PCR (prepared by PC).	No later than six months after the final disbursement of the Loan.
Operation	
(a) Audited Annual Financial Statements and Operating Statistics	No later than six months after the end of each financial year.
(b) Updated three-year financial projections.	At the completion of each financial year.

The indicators, targets and reporting responsibilities are set out in the table in appendix 1.

No Exit Workshop was conducted given the length of time since implementation of the components and the non-availability of key personnel required to report on the activities during implementation. The CDB team conducted information exchanges with the current Project Coordinator to inform the Project Completion Report.

The appraisal document also made provisions for a Project Launch Workshop and a Project Exit Workshop under the topic of capacity building. However, no Exit Workshop was conducted given the length of time since implementation of the components and the non-availability of key personnel required to report on the activities during implementation. The CDB team conducted information exchanges with the current Project Coordinator to inform the Project Completion Report.

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATION)

The following are the ratings of the PCR and PSRs over the project implementation period, and the Evaluator's ratings based on the data reviewed.

Relevance

Relevance to GOBZ development priorities

The PCR concludes that the project was a high priority for BEL due to the vital need for a reliable electricity supply for the country's continued development. The outcomes of the project are consistent with the Belize country strategy, namely, the Project supports GOBZ's developmental objectives by preparing the sub-transmission and distribution systems to receive distributed generation – both renewable and conventional energy.

Relevance to CDB's country and sector strategy and poverty goals

The PCR concludes that the project has facilitated CDB's Strategic Objective of promoting broad-based economic growth and inclusive social development in Belize and further aligns with CDB's Strategic Objectives and Corporate Priorities. Furthermore, the project responds to a need stated in the Country Strategy Paper approved by the CDB Board of Directors in July 2011, which list one of the outcomes of the strategy as "enhanced environment for output growth", and identified the need for significant investments in economic infrastructure as a key requirement in the achievement of this outcome.

Based on the above, the Evaluator agrees with the PCR assessment that the relevance was **Highly Satisfactory**.

Effectiveness

The outputs were not fully achieved, but as per the explanation provided in the PCR it is clear that they were close to being achieved by the target date: Of the six upgrades identified as outputs, five upgrades have been completed, and the pending output (Belize City upgrade) had made substantial progress at the time of writing the PCR, and was targeted for a Q2 2025 completion. The outputs of the submarine cable feasibility studies are available to BEL for their use and determination for adoption. The recommendation of the feasibility study for Caye Caulker has been adopted and a capital project is currently under implementation. The following tables (3 and 4) show the output indicators and targets with the results achieved, the inputs (table 5), followed by the outcome indicators and targets with the results achieved (tables 6 and 7).

Table 3: Output indicator targets and results

Outputs						
Output Indicator	Baseline Value Baseline Date	Target Value Target Date	Monitoring Year	Planned Value	Actual Value	Target Achieved (100%)
Six load centres across Belize upgraded and reinforced by December 31, 2016.	0 1/1/2013	12/31/2023	2023	6	5	No
Feasibility Study completed and recommendations adopted by December 31, 2016	0 1/1/2013	Yes 12/31/2023	2023	Yes	No	No

Table 4: Explanation of variance in output results

Explanation of Variance: Outputs	
Six load centres across Belize upgraded and reinforced by December 31, 2016.	Five of the six load centre upgrades and reinforcement were completed by the end of 2023, namely (1) Corozal and Orange Walk, (2) San Pedro Ambergris Caye, (3) Belmopan, (4) Placencia and (5) Ladyville. The new Belize City substation upgrade was 90% complete as of January 2025. Completion of remaining works is targeted for Q2 2025.
Feasibility Study completed and recommendations adopted by December 31, 2016	Three evaluations are in the scope of this work. The feasibility of installation of submarine cables to Caye Caulker from Ambergris Caye was completed and its recommendations adopted. This is reflected in the implementation of the Seventh Power project and its subsequent additional loan. The feasibility study for San Pedro, Ambergris Caye was completed. The third feasibility study for Placencia was completed in draft.

Achievement of Project Components and Outputs

Table 5: Project components (inputs) and status at project completion

Components
<p>Name: Land</p> <p>Description: Cost of parcels of land to site the Chan Chen, Boca Del Rio, Banak and Palloti Substations. These lands were already purchased by BEL.</p> <p>Status at Project Completion: 100% complete under counterpart funding.</p>
<p>Name: Infrastructure Works</p> <p>Description: Upgrade of sections of the sub-transmission and distribution system across Belize, namely:</p> <ol style="list-style-type: none"> 1. Placencia primary distribution upgrade, 2. Belize City upgrade, 3. Ladyville expansion and upgrade, 4. San Pedro Ambergris Caye expansion and upgrade, 5. Corozal and Orange Walk reinforcement and upgrade, and 6. Belmopan upgrade.

Status at Project Completion:

The Placencia upgrades (upgrade section of Placencia North of Surfside Substation from 6.6kV to 22kV and upgrade section of Placencia South of Surfside Substation to Malacate from 6.6kV to 22kV) are 100% completed. Placencia experienced significant load growth and required greater numbers of pole-mounted distribution transformers to be replaced by the time this workstream was implemented.

The Belize City upgrades of section of BZE-06 Feeder to 22kV and connect to LDV-01 Feeder, and upgrade section of BZE-02 Feeder to 22 kV and connect to LDV-01 Feeder are both complete. Construction of a new substation at Banak to supply southern Belize City was 100% complete as of October 2023. Construction of a new substation at Pallotti to supply northern Belize City was 100% complete as of October 2023. Construction of the Belize City 115/22kV temporary substation (for redundancy to allow substantive works on the upgrade to the Belize City substation) was completed August 2023. This Belize City temporary substation was a change from the original plan to supply the new back-up stations of Banak and Pallotti from Ladyville. The new Belize City substation upgrade was 90% complete as of January 2025. This new substation also had additional works included that were not in the original estimate (additional outdoor switchgear and outdoor circuit breakers, and a new building to house the new indoor switchgear where previously there had only been provision for a small control room). Completion of remaining works is targeted for Q2 2025 under counterpart funding.

The Ladyville upgrade of construction of 3.7 miles of overhead 22kV line from Haulover Bridge to Pallotti substation is completed. The remaining portions of the Ladyville expansion project were cancelled pending a reassessment of the future requirements for this localised project area. These cancelled portions were construction of 3.1 miles of double circuit overhead 22kV line from Ladyville to Haulover Bridge, construction of a new substation at Ladyville, construction of 8.0 miles of overhead 115kV transmission line associated with Ladyville Substation and extension of LDV-03 Feeder to supply Army Camp Substation.

The San Pedro Ambergris Caye expansion and upgrades (Installation of a new 25MVA 115/34.5kV transformer at Maskall substation to supply Ambergris Caye and North San Pedro Substation and upgrade SPR-03 Feeder to 22kV and transfer load to SPR-01 Feeder) are 100% completed. San Pedro experienced significant load growth and required greater numbers of pole-mounted distribution transformers to be replaced by the time this workstream was implemented. At the time of implementation, the cost of transformers had increased due to global demand post-Covid.

The Corozal and Orange Walk reinforcement and upgrade works (construction of a new 10MVA 115/34kV Substation at Chan Chen, construction of 115kV and 34.5kV transmission lines for Chan Chen Substation, expansion and upgrade of Belcogen Substation, and construction of 34.5kV sub-transmission line for Belcogen Substation) are 100% completed. At Chan Chen, the scope was expanded from the original scope of a wooden bus substation with minimal switching capabilities and a single line into the main 115kV transmission system to a complete 115-34.5kV substation with steel structures and two 115kV transmission lines, breakers and accompanying protection equipment (an in-out configuration). For the Belcogen upgrade, the originally proposed 10MVA 115/34.5kV transformer was upgraded to a 115/34.5kV 20MVA transformer due to load growth (the expected load had surpassed the rating of the originally proposed transformer).

The Belmopan upgrades (construction of approximately 1.5 miles of overhead 22kV distribution line to extend BMP-04 Feeder from Las Flores and upgrade the section of BMP-01 Feeder which currently feeds the villages of San Martin, Salvapan and Maya Mopan from 11kV to 22kV) are 100% completed.

Name: Engineering and Construction-related Services

Description: The costs of supplemental engineering design services for the substations at Ladyville, Belize City, Belcogen and Chan Chen and works verification to facilitate disbursements were provided by external consultants. Engineering design services were provided in-house by engineers from BEL's System Planning and Engineering Department.

Status at Project Completion: 100% complete under counterpart funding.

Name: Project Management

Description: The time, administrative and general expenses for BEL personnel assigned to the

management of the Project Status at Project Completion: 100% complete under counterpart funding.
Name: Technical Assistance Description: Studies to determine the economic and technical feasibility of three proposed submarine cable projects: Supply to Caye Caulker from Ambergris Caye, additional supply to Ambergris Caye from mainland Belize and the replacement of the old submarine cable to Placencia. Status at Project Completion: The feasibility of installation of submarine cables to Caye Caulker from Ambergris Caye was completed in 2018. The feasibility study for San Pedro, Ambergris Caye was completed. The draft feasibility study for Placencia was completed.

Achievement of Development Outcomes

The project outcomes were partially⁸ achieved.

The project has had a beneficial effect on the reliability of the BEL network as it sought to address the challenges of unplanned electricity outages due to a lack of redundancy and equipment failure in the distribution system. Both the frequency and duration of outages have been reduced.

The project has contributed to the economic benefits to be accrued from improved access to a reliable electricity supply and enhancing capability to service increased demand. An overall reduction in the system cost of power has been observed. The outcome indicator that proved the most challenging and saw the least progress was ‘reduction in system losses from 12.49% to 10.96% by 2017’.

Where there are outcome targets that have not been achieved, there have nonetheless been improvements on the baseline values (see tables below).

⁸ PCVR states ‘mostly achieved’ however only 50% were achieved.

Table 6: Outcome indicator targets and results

Outcomes						
Outcome Indicator	Baseline Value Baseline Date	Target Value Target Date	Monitoring Year	Planned Value	Actual Value	Target Achieved (100%)
Reduction in system losses from 12.49% to 10.96% by 2017.	12.49 1/1/2012	10.96 12/31/2023	2023	10.96	12.30	No
Reduction in SAIDI from 22.8 hours to 20 hours by 2017.	22.8 1/1/2012	20 12/31/2023	2023	20	17.54	Yes
Reduction in SAIFI from 17.6 times to 13 times by 2017.	17.6 1/1/2012	13 12/31/2023	2023	13	14.53	No
Average Cost of Power, COP (\$/kWh)	0.2872 1/1/2012	0.2650 12/31/2023	2023	0.265	0.2599	Yes

Table 7: Explanation of variance in outcome results

Explanation of Variance: Outcomes	
Reduction in system losses from 12.49% to 10.96% by 2017.	This target was not achieved . A marginal reduction in system losses was observed between appraisal (12.49% in 2012) and 2023 (12.30% in 2023). It should be noted that the indicators used here for both baseline and target are national-level metrics.
Reduction in SAIDI from 22.8 hours to 20 hours by 2017.	This target was achieved and exceeded. It should be noted that the indicators used here for both baseline and target are national-level metrics.
Reduction in SAIFI from 17.6 times to 13 times by 2017.	While the target was not achieved , this represents a substantial improvement on the 2012 baseline, moving from 17.6 to 14.6. It should be noted that the indicators used here for both baseline and target are national-level metrics.
Reduction in Average Cost of Power (\$/kWh) from 0.2872 to 0.265 by 2017.	This target was achieved . It should be noted that the indicators used here for both baseline and target are national-level metrics.

⁹ Average (per unit) cost of power is determined by cost of power operating expense divided by net generation volumes as provided in BEL's published annual report.

In addition to project outcomes, the project aimed to achieve several Country Strategy Paper Sector outcomes described below. The PCR assessment concludes that these were achieved as intended.

Relevant Country Strategy Paper Sector Outcome at Design

CSP Sector Outcome:

The Project was intended to improved reliability and quality of the power supply to BEL's customers; reduction in system losses; and increased capacity to serve projected demand for electricity in four major load centres across Belize.

The Project is consistent with the Belize Country Strategy Paper (2011-2015), which identified “enhanced environment for output growth” as a key development outcome and identified the need for significant investments in economic infrastructure as a key requirement in the achievement of this outcome.

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

- Promoting broad based economic growth
- Supporting Inclusive and Sustainable Growth and Development

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

- Strengthen/Modernise Social and Economic Infrastructure

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

- SDG 9. Industry, innovation and infrastructure

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

- Energy Security
- Regional Cooperation and Integration
- Environmental Sustainability

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

- Technical Assistance Policy and Strategy
 - Gender Equality Policy and Strategy
 - Environmental and Social Review Procedures
 - Regional Cooperation and Integration
 - Energy Sector Policy and Strategy
 - Climate Resilience Strategy
-

Unintended Effects of Project that Negatively or Positively Impacted Project Objectives

The PCR reports that voltage upgrades along the distribution feeders at San Pedro Ambergris Caye and Placencia required several planned power outages to customers in these areas. Since these two areas are heavily involved in the tourism industry, this resulted in some inconvenience to business in the area. The impacts were mitigated by actively communicating with the industry stakeholders, providing adequate notice to customers and stakeholders, and emphasising the importance of the upgrades.

Considering the delays in achieving the targets and 50% outcome success rate, the Evaluator disagrees with the PCR's rating of **Highly Satisfactory** and suggests the rating should be **Satisfactory**.

Efficiency

The PCR included a re-estimation of Economic Performance

Rates of Return	Appraisal	Completion
Economic Rate of Return	19%	15%

The economic rate of return was recalculated for the PCR based on the impact of the project on incremental sales and reduction in technical losses. It is assumed that the incremental energy demand observed reflects increases due to new customer access to the grid as well as increased demand from existing customers who now experience fewer outages. The re-calculated ERR of 15%, though below the 19% anticipated at appraisal due, remains above the hurdle rate of 12%. The \$9mn increase in total project cost, as well as the negligible decrease in technical losses contributed to the dampening of the rate of return. However, this was countered by the explosion of energy demand in the project areas. At the time of appraisal, it was assumed that sales would grow at a rate of 3.6% p.a., based on the forecasted GDP growth rate. However, the actual sales growth rate has been significantly higher, averaging 7% p.a. over the last three years. It is to be noted that the increased cost was due to the adjustment of scope to facilitate additional upgrades deemed necessary to support the significant load growth that had been observed at several centres and would have led to an overall increase in reliability and stability of the power supply system. The observed increase in economic activity in project areas such as San Pedro, Ambergris Caye provides evidence that the implementation of the project has provided significant net benefits to the economy of Belize. The recalculated ERR of 15% confirms that despite the scheduled overruns, and escalation in project costs (as evidenced by increased counterpart spending) the project remains economically viable. The PAS states that an ERR greater than 12 but less than 16% should be rated 'satisfactory'.

Through a conversation with an analyst from the project team revealed that although recalculation of the ERR was possible with the information available, one element was missing due to lack of data from BEL and therefore had to be omitted from the calculation. It was challenging to quantify the improvement in system reliability due to lack of data. An ERR of 15% is therefore a conservative estimate.

Explanation of Time and Cost Variance

The project timeline was impacted by several factors.

Significant and recurring delays in procurement were identified as the primary source of project delays between 2013-2018. Within this period the project undertook two major International Competitive Bidding (ICB) processes for goods. Both required multiple submission deadline extensions, and the subsequent responses were unsatisfactory, with either no bids received or only one bidder bidding for only selected lots. Further, most of the bids that were received were considered higher than what BEL would have received had BEL itself been undertaking the procurement using their established competitive commercial practices. Efforts by CDB and BEL to undertake market research to identify suitable suppliers and also to increase the promotion of procurement notices had little to no impact on the number of responses to ICB tenders, for Goods, in particular.

The issues with procurement, faced by ICB tenders, were in contrast to BEL's experience with its own procurement of similar materials, using their established procurement procedures. These procedures had resulted in responsive quotes from several suppliers outside of CDB's Member Countries. Use of these procedures, which entailed use of a competitive process, allowed procurement of those components to be completed within the forecast timeframes.

This procurement challenge was resolved through the application for and approval of waivers. By letter dated March 14, 2018, BEL requested a waiver of CDB’s Guidelines for Procurement (2006) to allow BEL to source bids for distribution, transmission, sub-transmission, substation materials and substation construction services from non-Member Countries (valued USD 4.3mn) using established commercial practices acceptable to CDB. A variation paper was prepared, inclusive of a revised procurement plan, and was approved by the Board of Directors on July 26, 2018. This variation was accompanied by a request for a second terminal disbursement date extension (TDD) to June 30, 2020, which was approved. The project has had two further extensions of its TDD to December 31, 2021, and ultimately to June 30, 2022.

The project was also impacted by delays due to the Covid-19 pandemic during the period 2020-2022. Additionally, changes in design and scope also led to significant delays.

The PCR outlined the following enabling factors that positively influenced output delivery:

Table 8: Enabling factors influencing output delivery

Item	Reason/ Discussion
Consultant/Contractor Performance	Multiple contractors and consultants participated in this project. Once appropriately procured and assigned, they performed well.
Borrower Commitment	BEL showed strong commitment in the completion of the project despite the setbacks.
Procurement/Fiduciary	Procurement completed in accordance with the Bank's policies and procedures applicable to the project at the time of implementation. This was achieved using waivers and sourcing alternative suppliers where applicable.
Supervision	The overall project was satisfactorily supervised. CDB provided procurement and implementation guidance and responses as needed.
Interagency Coordination	The project was well-coordinated among agencies as was needed.
Social/Environmental/Gender	No evidence of issues during implementation.
Legal/Regulatory	Project staff was assigned in a timely manner. The relevant legal requirements were completed to facilitate land acquisition where needed.
Budgetary/Local Counterpart Funds	BEL provided counterpart resources for the acquisition of land and project management in a timely manner. However, the final counterpart contribution was approximately three (3) times the amount initially envisaged.
Performance of Project Management Unit	BEL has a strong PMU. However, there was poor reporting in the later stages of the project (post 2018). BEL was effective in liaising with different stakeholders and agencies in order to achieve the outcomes of the project. Transmission upgrades require planned shutdowns which require deliberate engagement with stakeholders for successful implementation with minimal disruption.
Land Acquisition/Resettlement	BEL purchased all lands relevant to the project. BEL used established utility right-of-way mechanisms as needed.

Considering the above, the Evaluator agrees with the PCR’s rating of **Satisfactory**.

Sustainability

Two critical factors were identified that contribute to or undermine sustainability of this project in the future (as reported in the PCR).

Operational: The ability of BEL to carry out routine and preventative maintenance on transmission assets impacts the sustainability of the project. To date, BEL's maintenance programmes have been sound and adequately financed. BEL should ensure personnel and resources to perform required maintenance are made available.

Financial: Delayed maintenance can shorten the life of assets and increase maintenance costs if breakdown rather than routine preventative maintenance is required. Adequate financial and human resources should be allocated for maintenance. Current projections for BEL reflect strong financial performance, and the capacity to meet operating costs such as maintenance.

The PCR concludes that the project sustainability is 'satisfactory' based on the following justification: *'On completion of the project, the intended benefits of the project are anticipated to be realised over the life of the assets. It is highly likely that the human, institutional and financial resources will be sufficient to maintain the expected outcomes over the economic lifetime of the intervention.'*

BEL has committed to corrective action where needed to optimise asset life.

In the Borrower Self-Assessment section of the PCR, BEL noted that *'there is no doubt that the projects will be sustainable since the assets have been integrated into the robust transmission, substation and distribution maintenance programs carried out by qualified personnel'*.

Overall, the Evaluator agrees with the PCR's rating of sustainability as **Satisfactory**.

Borrower and EA Performance

The PCR states that BEL provided counterpart resources for project management in a timely manner and that this, along with the strong Project Management Unit was a key factor to enable implementation of the project. However, there was poor reporting in the later stages of the project (post 2018). BEL was effective in liaising with different stakeholders and agencies in order to achieve the outcomes of the project. Transmission upgrades require planned shutdowns which require deliberate engagement with stakeholders for successful implementation with minimal disruption.

Nevertheless, the PCR concluded that the Borrower Performance was marginally unsatisfactory for several reasons. The project was impacted by severe delays in implementation due to procurement challenges and design changes. A CDB waiver for procurement purposes had to be obtained via variation paper five years into the project, further delaying the implementation process. BEL did undertake a larger contribution of counterpart contribution to account for changes in the design of the project components to better achieve project outcomes.

In terms of compliance with M&E and reporting, the PCR notes that in the latter years of the project, there were some issues with the timely submission of project reports

The Evaluator agrees with the PCR conclusion that the Borrower Performance was **Marginally Unsatisfactory**.

CDB Performance

According to the PCR, CDB performance was satisfactory. Staff provided effective supervision related to the project and responded in a timely manner for clarification/guidance on the disbursement of funds. The preparation and approval of a variation paper to address the need for a CDB waiver for procurement (to allow BEL to source equipment from countries outside CDB eligibility) occurred five (5) years after Board approval. This need could have been evaluated and acted on earlier in the project life cycle.

Considering the above, the Evaluator agrees with the PCR and concludes the CDB Performance was **Satisfactory**.

5. OVERALL PERFORMANCE RATING

Overall Performance Rating

The PCR rates the overall performance of the project as Highly Satisfactory, with a score of 3.5. The Evaluator rates the overall performance of the project as **Satisfactory**, with a score of 3.25 which is the upper limit of the ‘satisfactory’ range. The rating is based on the composite (aggregate) scores for relevance, effectiveness, efficiency and sustainability (see table below).

Table 9: Ratings & Overall Assessment*

Criteria	PCR ¹⁰	OIE Review	Reason, if any, for Disagreement/Comments
<i>Relevance</i>	HS	HS (4)	
<i>Effectiveness</i>	HS	S (3)	Does not meet PAS manual criteria for HS (implementation delays, partial achievement of targets).
<i>Efficiency</i>	S	S (3)	
<i>Sustainability</i>	S	S (3)	
Composite (Aggregate) Performance Rating		13 = 3.25 Satisfactory	
<i>Borrower & EA Performance</i>	MUS	MUS	
<i>CDB Performance</i>	S	S	
<i>Quality of PCR</i>	Not applicable	HS	

***Overall assessment based on overall average score:**

HS:	Highly Satisfactory	> 3.25 and ≤ 4.00
S:	Satisfactory	> 2.50 and ≤ 3.25
MUS:	Marginally Unsatisfactory	> 1.75 and ≤ 2.50
US:	Unsatisfactory	> 1.00 and ≤ 1.75

¹⁰ PPES scores and ratings used in PCR and PSRs to be converted to PAS 2013 scores and ratings, using the equivalence matrix in the relevant PAS 2013 Manual (Public Sector Investment Lending and TA; Policy Based Lending; CSP).

Lessons

The PCR identified four lessons learned from implementation of the project, noted below.

Table 10: Lessons learned from implementing the project

Description	Response
<p>Works under the project required planned shutdowns in key commercial areas.</p> <p>Public support was essential for the ongoing success of this community-facing infrastructure project. Continuous engagement helped address any community concerns, maintained public safety and fostered a positive perception of the project.</p>	<p>The impacts of disruptions were mitigated by actively communicating with the industry stakeholders, providing adequate notice to customers, and emphasising the importance of the upgrades.</p>
<p>There were delays due to procurement challenges which were caused due to poor market response to tenders and inability of BEL to source bids for distribution, transmission, sub-transmission, substation materials and substation construction services from CDB non-Member Countries, resulting in restrictions in the countries from which BEL usually sources equipment and services.</p> <p>This was resolved through application for and approval of waivers five (5) years after the initial Board of Directors approval.</p>	<p>A well-defined and thought-out procurement strategy early on can reduce implementation delays.</p>
<p>The indicators that were selected were national metrics rather than metrics representative of the project areas. This presented a challenge in distinguishing the impacts of the project from other exogenous effects.</p> <p>Additionally, there were indicators that could have been better defined to identify and isolate the impact of the project. For example, system losses may have been better broken into technical and non-technical losses targets.</p>	<p>Where such indicators are not already being measured by the entity, institutional capacity building to implement the necessary systems should form part of the project.</p>
<p>Frequent changes in design led to significant delays.</p>	<p>Greater emphasis should be placed on thoroughly defining the project in its early stages and before appraisal to minimise rework and prevent inefficiencies.</p>

6. COMMENTS ON PCR QUALITY

The Evaluator rates the PCR quality as **Highly Satisfactory** based on an assessment of :

- (a) Clarity and conciseness;
- (b) Quality and completeness of evidence and analysis to support scores and ratings;
- (c) Identification of exogenous factors affecting project implementation and results;
- (d) Lessons of experience identified
- (e) Adequacy of evidence provided in the PCR and data provided by Operations Staff to support the validation process.

7. DATA SOURCES FOR VALIDATION

- CDB Appraisal Document: **PAPER BD 87/13 Corr.1**
- PCR (no date on the PCR)
- Project Supervision Report/s for the period 1/1/2022 - 12/31/2022
- Loans Disbursement Details 6th Power project
- CDB Mission - Project Progress Presentation - Sixth Power Project (2023-03-13)

8. RECOMMENDATIONS FOR OIE FOLLOW-UP

N/A

MANAGEMENT RESPONSE



MEMORANDUM

To: Strategic Advisory Team
thru Director, Projects Department

Subject: Management Response to Office of Independent Evaluation Project Completion Validation Report – Sixth Power Project – Belize – 21/OR-BZE -Belize’

From: Division Chief (Ag.)
Economic Infrastructure Division (EID)

Date: February 6, 2026

The Project Completion Report (PCR) team for the captioned project would like to thank the Office of Independent Evaluation (OIE) for its assessment and findings presented in the Project Completion Validation Report (PCVR) for the project – Sixth Power Project 21/OR-BZE -Belize. The team also thanks the OIE for its rating of the PCR quality as Highly Satisfactory.

There is agreement with the assessment and findings of the PCVR, which rates the overall performance of the project as Satisfactory - based on the composite scores for the project’s relevance, effectiveness, efficiency, and sustainability, as detailed in the PCR. OIE has incorporated the comments of EID into the report and where any differences in scores were observed, the OIE justifications provided were acceptable.

Management appreciates OIE’s validation. We are pleased with the project’s successful completion and strong performance. The lessons around the importance of effective stakeholder engagement and communication, procurement strategy and monitoring and evaluation are well noted and inform the appraisal and implementation of Bank-funded projects.

Handwritten signature of William M. Ashby.

William M. Ashby
Division Chief (Ag.)
Economic Infrastructure Division

Handwritten signature of L. O'Reilly Lewis.

L. O'Reilly Lewis
Director, Projects Department

WMA/CGE:kd

cc: Mr. Roberto La Rovere, Head of Evaluation, OIE
Ms. Katherine Laikos, Evaluation Officer, OIE

DESIGN AND RESULTS MONITORING MATRIX – SUMMARY OF THE SIXTH POWER PROJECT - BELIZE

Narrative Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Assumptions
<p>1. IMPACT: To contribute to the social and economic development of Belize through the provision of a reliable and efficient electricity supply.</p>	1. Increase in electricity consumption by 3.6% p.a.	1. BEL's Annual Report.	<p>Assumptions for Achieving Goals</p> <ol style="list-style-type: none"> 1. Macroeconomic stability. 2. Continued favourable activity in mariculture, agro-processing and the tourism sector. 3. Supporting GOBZ policies.
<p>2. OUTCOME: The outcome of the Project will be improved reliability of BEL's sub-transmission and distribution systems delivering quality power supply to customers in an efficient manner, with sufficient capacity that caters to increased projected demand for electricity in four major load centres across Belize to 2030.</p>	<ol style="list-style-type: none"> 1. Reduction in SAIDI from 22.8 hours to 20 hours by 2017. 2. Reduction in SAIFI from 17.6 times to 13 times by 2017. 3. Reduction in system losses from 12.49% to 10.96% by 2017. 	<ol style="list-style-type: none"> 1. BEL's records. 2. BEL's Management Reports. 	<p>Assumptions for Achieving Purpose</p> <ol style="list-style-type: none"> 1. No economic decline experienced.
<p>3. OUTPUTS:</p> <ol style="list-style-type: none"> (a) Upgrade of sections of the sub-transmission and distribution system across Belize. (b) Recommendations on the feasibility of installation of three submarine cables to San Pedro, Caye Caulker and Placencia. 	<ol style="list-style-type: none"> 1. Six load centres across Belize upgraded and reinforced by December 31, 2016. 2. Feasibility Study completed and recommendations adopted by December 31, 2016 	<ol style="list-style-type: none"> 1. Site inspection. 2. Project Completion Report (PCR). 3. BEL's records 	<p>Assumptions for Achieving Project Outputs</p> <ol style="list-style-type: none"> 1. No major natural disasters occur. 2. Adherence to design specifications. 3. All necessary approvals/permit received.
<p>4. INPUTS:</p>	USD (\$'000)		
	CDB	BEL	TOTAL
1. Land	-	137	137
2. Sub-Transmission and Distribution System Upgrades at:			
(a) Placencia	1,352	39	1,392
(b) Belize City	4,403	636	5,039
(c) Ladyville	4,654	1,562	6,216
(d) San Pedro Ambergris Caye	2,341	285	2,626
(e) Corozal and Orange Walk	5,325	314	5,639
(f) Belmopan	321	5	327
3. Engineering Services	-	1,518	1,518
4. Project Management	-	1,118	1,118
5. TA – Feasibility Study	1,200	76	1,276
Base Costs	19,597	5,691	25,287
6. Contingencies	2,865	297	3,162
Total Project Cost	22,462	5,988	28,449
7. Interest During Construction (IDC)	-	1,728	1,728
8. Commitment Fee	-	242	242
Total Financing	22,462	7,957	30,419
USD	11,231	3,979	15,210
Percentage	74	26	100
			<p>Assumptions for Provision of Inputs</p> <ol style="list-style-type: none"> 1. BEL is able to provide counterpart funds as required. 2. Inflation does not exceed 3% p.a. 3. No abnormal weather conditions occur during the construction period.

RESULTS MONITORING FRAMEWORK

Below is the results monitoring framework as designed at appraisal (see p8 appraisal document). The results monitoring framework did not change during the project life cycle.

Outcome Indicators	Base Level 2012	Target Level 2017			Frequency of Reports	Data Collection Instruments	Responsibility for Data Collection
Reliability Index SAIDI	22.8	20			Annually	BEL Records/Management Reports.	BEL Engineering and System Planning Department (ESPD)Staff
Reliability Index SAIFI	17.6	13			Annually	BEL Records/Management Reports.	BEL ESPD Staff
Losses (%)	12.5	10.96			Annually	BEL Records/Management Reports.	BEL ESPD Staff
Average Cost of Power (\$/kWh)	0.2872	0.265			Annually	BEL Records/Management Reports.	BEL Finance & Human Resources Department Staff
Output Indicators	Base Level 2013	2014	2015	2016			
Feasibility Study for Submarine Cables	0		Completed		Once	Study Document	Consultants BEL Management
Placencia Primary Distribution Upgrade	0			Completed	Once	PCR BEL's Records. Disbursement Records.	Project Coordinator
Belize City Upgrade	0		Completed			PCR, BEL Records Disbursement Records	
Ladyville Expansion and Upgrade	0		Completed		Once	PCR, BEL Records Disbursement Records	Consultants BEL Management
San Pedro Expansion and Upgrade	0	Completed			Once	PCR, BEL Records Disbursement Records	
Corozal and Orange Walk Reinforcement/Upgrade	0	Completed			Once	PCR, BEL Records Disbursement Records	
Belmopan Upgrade	0			Completed	Once	PCR, BEL Records Disbursement Records	

CARIBBEAN DEVELOPMENT BANK



VALIDATION OF PROJECT COMPLETION REPORT

ON

FOURTH ROAD PROJECT

(South Leeward Highway Rehabilitation and Upgrade)

OFFICE OF INDEPENDENT EVALUATION (OIE)

December 2025

Loan No. 18/SFR-OR-STV;

GA 29/STV

PRN NO.: 3712

Head Office of Independent Evaluation	-	Dr. Roberto La Rovere
Evaluator	-	Everton Clinton
Quality Control Reviewers	-	Katherine Liakos

CURRENCY EQUIVALENT

(Dollars [\$] throughout refer to Eastern Caribbean Dollars [XCD] unless otherwise stated)

XCD1.00 = USD0.37

USD1.00 = BZD2.70

ABBREVIATIONS

%	-	per cent
AR	-	Appraisal Report
BMC	-	Borrowing Member Country
BRAGSA	-	Roads, Buildings and General Services Authority
CDB	-	Caribbean Development Bank
CLO	-	Community Liaison Officer
DFC	-	Development Finance Corporation
ERR	-	Economic Rate of Return
GDP	-	Gross Domestic Product
GOSVG	-	Government of St. Vincent and the Grenadines
HDM	-	Highway Development and Management Model
MCMH	-	Milton Cato Memorial Hospital
m	-	metres
mn	-	million
MTW	-	Ministry of Transport and Works
PC	-	Project Coordinator
PCFP	-	Project Cost and Financing Plan
PCR	-	Project Completion Report
PMD	-	Project Management Department
PSR	-	Project Supervision Report
RAMS	-	Road Asset Management System
SLH	-	South Leeward Highway
VWC	-	Vehicle Weight Control

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1. BASIC PROJECT DATA

Project Title	Fourth Road Project (South Leeward Highway Rehabilitation and Upgrade)
Country	St. Vincent and the Grenadines
Sector	Transport and Communication
Loan No.	18/SFR-OR-STV; GA29/STV
Borrower	Government of St. Vincent and the Grenadines
Implementing/Executing Agency	Ministry of Transport and Works (MTW)

<u>Approvals/Disbursements (\$ mn)</u>	<u>OCR¹</u>	<u>SFR²</u>	<u>Total</u>
Loan Amount	5.04	8.59	13.63
Disbursed	5.03	8.59	13.62
Grant	-	0.05	0.05

<u>Project Milestones</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Board Approval	December 12, 2012	December 12, 2012	0
Loan Agreements signed	June 12, 2013	February 12, 2013	(4)
Loan Effectiveness ³	March 12, 2014	August 08, 2014	5

<u>CDB Loan</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
First Disbursement Date (Loan)	Jan 31, 2014	Aug 18, 2014	0
Terminal Disbursement Date (Loan)	Nov 30, 2016	Dec 31, 2021	5.08
TDD Extensions (number)	-	2	-

<u>Terms</u>	<u>Interest Rate</u>	<u>Repayment</u>	<u>Grace Period</u>
CDB Loan (OCR)	3.61% (variable)	16 years	4 years (inclusive)
CDB Loan (SFR)	2.5% (fixed)	30 years	10 yrs (inclusive)
CDB Loan (SFR-IDB)	0.5% (fixed)	38 years	-

<u>Project Cost and Financing (\$ mn)</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance</u>
CDB Loan	13.63	13.62	0.01
Counterpart	2.51	2.10	0.41
Total	16.14	15.72	0.42

<u>Implementation</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Start Date ⁴	June 12, 2013	Feb 12, 2013	(4 months)
Completion Date	Nov 30, 2016	Dec 31, 2021	61 months
Implementation Period (years)	3.33 years	8.50 years	61 months

<u>Economic rate of Return (%) (at Appraisal)</u>	24%	Not Available
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¹ Comprised of USD3.46 mn of the IDB Financing.

² Comprised of USD1.48 mn of the IDB Financing

³ Date conditions precedent to first disbursement satisfied.

⁴ Implementation begins on the date the loan Agreement is signed.

2. **PROJECT DESCRIPTION**

Rationale

2.01 South Leeward Highway (SLH) represents the only continuous Leeward route from the north of the island into the capital, Kingstown, and as such serves the important container port and industrial area at Campden Park, as well as the majority of the island's tourism sites and attractions. The existing road, which traverses very challenging terrain, exhibited various standards with respect to road width, horizontal geometry, vertical grade, roadside drainage, and accommodation for pedestrians. The road width, at appraisal, was highly variable, ranging from 4 metres (m) at its narrowest to a maximum of 9.5 m, and was characterised in many sections by short radius bends, dangerous minor road intersections, and a lack of provision for pedestrian movement. Road safety was further compromised by the fact that SLH is the sole haulage route between Campden Park and Kingstown for an average of forty 40-foot containers weekly, and is also traversed by a large number of heavy goods vehicles which travel from the quarries of Layou to destinations in the south of the island.

2.02 Significant development occurred adjacent to the road, where structures and paved parking areas were built, with sometimes inadequate or inaccessible pipe culverts replacing the natural watercourses. There was, therefore, also an urgent need to upgrade and rationalise SLH's existing drainage system since indiscriminate development, substandard roadside drains and compromised drainage structures were among the main contributors to current road conditions and frequent flooding of the island's main health facility. Since its redevelopment as a two-lane, two-way, major road in the early 1970s, SLH had deteriorated significantly, as evidenced by areas of widespread surface cracking and potholes along the route. Sections of SLH were classified as having a pavement roughness as high as 6 mm/m, which was synonymous with frequent moderate and uneven depressions or patches that adversely affected the ride quality of a vehicle.

2.03 The SLH corridor was not designed for container traffic and, as a result, in addition to the damaged roadway, was subject to heavy congestion along the 3.84 km section of the highway between Campden Park Container Port and Kingstown. The area attracted a resort development as well as further planned residential developments, which were likely to contribute to increased economic activity and consequential increases in traffic. The overall state of affairs along SLH, if not addressed, would worsen and impede residential, commercial, and industrial development and other economic activity in St. Vincent and the Grenadines. Project investments in rehabilitating and upgrading SLH were an essential component of the overall infrastructural requirements needed for the economic and social development of the Leeward corridor of St. Vincent and the Grenadines.⁵

Expected Impact

2.04 The project was expected to contribute to the socio-economic development of the Leeward section of St. Vincent and the Grenadines.

Objectives or Expected Outcomes

2.05 The expected outcome of the project was increased efficiency and safety of road transportation along the Leeward section of St. Vincent between Kingstown and Layou.

⁵ AR: Chapter 1 – Rationale, Page 4, Paragraph 1.13. Paper BD 108/12, December 12, 2012.

Components and/or Outputs

2.06 The six components of the project were:

- (a) Road rehabilitation and upgrade works along the 11.4 km of SLH;
- (b) Land: Acquisition of privately owned strips of land (of average width 2 m) at four locations adjacent to road right-way to facilitate widening of the corridor and improving turning radii for 40-foot containers;
- (c) Project Management: Project Coordinator (PC), Community Liaison Officer (CLO) and Administrative Support;
- (d) Engineering Services: consultancy services for pre-tender activities and supervision of road rehabilitation and road and bridge works;
- (e) Vehicle Weight Control Procurement: procurement of four portable weigh scales and automatic traffic counters; and
- (f) Vehicle Weight Control Consultancy: consultancy services for conducting axle load survey and improving vehicle weight control.

Provision of Inputs

2.07 In December 2012, the Caribbean Development Bank (CDB) approved a loan in the amount of USD13.628 million (mn) to the Government of St. Vincent and the Grenadines (GOSVG) to assist in financing the Fourth Road Project (South Leeward Highway Rehabilitation and Upgrade); and a grant to GOSVG of USD51,000 to finance the Technical Assistance component of the Project. The CDB loan was to finance approximately 84 per cent (%) of the estimated cost of \$43.71 mn (USD16.19 mn). The loan funds were to be utilised for infrastructure works and capacity building. The infrastructure works primarily entailed the rehabilitation and upgrade of 11.4 km of the South Leeward Highway from Kingstown to Layout. The Institutional Strengthening component consisted of the procurement of four portable weight scales and automatic traffic counters; and a Vehicle Weight Control Consultancy. The GOSVG was to provide counterpart funding of \$6.78 mn (USD2.5 mn) to meet the remaining project costs. A summary of the original project costs and financing is shown in Table 1.

TABLE 1: SUMMARY OF ORIGINAL PROJECT COSTS AND FINANCING
(\$'000)

Item	Total	SFR	OCR	Grant	GOSVG
Land	486				486
Road Rehabilitation and Upgrade Works	27,900	14,787	13,113	-	-
Engineering Services - Upgrade and Design Study	1,790	-	-	-	1,790
Engineering Services - Supervision	2,112	-	-	-	2112
Project Management	1,687	-	-	-	1,687
Institutional Strengthening - Consultancy	190	-	-	120	70
Institutional Strengthening- Equipment	59	59	-	-	-
Physical Contingency	4,506	2,224	1,967	12	303
Price Contingency	3,014	1,419	1,256	6	332

Item	Total	SFR	OCR	Grant	GOSVG
IDC and Commitment Charge	1,971	698	1,273	-	-
Total Cost	43,713	19,187	17,609	138	6,780
USD Equivalent	16,190	7,106	6,522	51	2,511

Revised

2.08 In October 2023, CDB approved a variation of the Original Terms and Conditions of the CDB Loan to substitute the equivalent of USD4.92 mn of the CDB Loan with the equivalent of USD4.92 mn allocated from resources provided by the Inter-American Development Bank (IDB). A revised summary of project costs and financing is presented in Table 2.

TABLE 2: REVISED SUMMARY OF PROJECT COSTS AND FINANCING
(S'000)

Item	Grant	SFR		OCR ⁶	Total CDB Loan	GOSVG	Total
		SDF	IDB Loan #2798/BL-RG				
1. Land	-	-	-	-	27,900	486	486
2. Road Works	-	14,787	3,167	9,946			27,900
3. Engineering Services:							
(a) Upgrade and Design Study	-	-	-	-	-	1,790	1,790
(b) Supervision	-	-	-	-	-	2,112	2,112
4. Project Management	-	-	-	-	-	1,686	1,686
5. Institutional Strengthening:							
(a) Consultancy	120	-	-	-	-	70	190
(b) Equipment	-	59	-	-	59	-	59
Total Base Cost	120	14,846	3,167	9,946	27,959	6,145	34,223
6. Physical Contingencies ⁷	12	2,224	473	1,494	4,191	303	4,505
7. Price Contingencies ⁸	6	1,419	266	990	2,675	332	3,013
8. IDC ⁹ and Commitment Charge		698	99	1,174	1,971	-	1,971
Total Project Cost	138	19,187	4,005	13,605	36,797	6,780	43,713
USD Equivalent	51	7,106	1,483	5,039	13,628	2,511	16,190
Percentage (%) Financing	-	44	9	31	84	16	100

Implementation Arrangements

2.09 The Project Management Department (PMD) had responsibility for the administration and management of the project. The Project Coordinator (PC) for the project from within PMD was primarily

⁶ OCR – Comprised of USD3,460,000 of the OC (IDB) Financing.

⁷ Physical Contingency: 15% on item 2; 10% on items 3(b) and 5; 5% on item 4.

⁸ Price Contingency: 3% p.a. (Foreign and Local)

⁹ IDC – Interest During Construction

responsible for supervising the implementation of the various components of the project through the engineering consultants and for project reporting and record keeping.

Identification of Risks and Mitigation Measures

2.10 One of the main risks identified at appraisal was utility implementation delays and cost increases. This was principally in respect of delays during utility relocation operations whether as a result of road widening, or drainage works at the Milton Cato Memorial Hospital (MCMH). The project sought to mitigate this risk by engaging a dedicated and experienced PC to oversee this process throughout project implementation. An additional mitigation measure was the provision of engineering consultants who were tasked with the responsibility of supervising the upgrade works. The possibility of cost over-runs was mitigated by the inclusion of adequate budgetary contingencies.

2.11 The management of traffic implementation delays was identified as another risk. The Appraisal Report (AR) states that implementation delays can also occur as a result of the absence of redundancy in the Leeward Road network and the need to accommodate the movement of container traffic through an active zone. To mitigate this risk, the project proposed that rehabilitation activities, especially upgrade works in short radius corners, should be closely coordinated between the project team and St. Vincent and the Grenadines Port Authority.

2.12 Another risk identified at appraisal related to the maintenance of the project infrastructure. The AR states that as a condition of the loan, GOSVG was required to implement measures, acceptable to CDB, of the Vehicle Weight Control Consultancy, to mitigate the risk of overloading within the upgraded corridor. AR also states that the components of the project were designed to have the lowest life-cycle costs of all alternatives considered, and as such, maintenance costs for the new infrastructure were expected to be minimal.

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

3.01 The project was consistent with CDB's Strategic Objective of promoting inclusive social development and broad-based economic growth within its Borrowing Member Countries (BMCs) and CDB's Corporate Priority to strengthen and modernize public infrastructure. It was also consistent with the strategic theme set out in the Resolution and Report of Contributors on Special Development Fund Seven (SDF7) of promoting the economic opportunities and productive capabilities of the poor through measures to improve the livelihood of poor people¹⁰.

3.02 At the time of appraisal, CDB had approved a total of USD6.27 mn, under the Basic Needs Trust Fund, for transport sector projects and related activities in St. Vincent and the Grenadines over the period 1979-2012. The project represented an essential infrastructural upgrade initiative along the Leeward side of St. Vincent (from the nation's capital to the town of Layou on the north-west coast) and was therefore pivotal to the country's medium and long-term economic development¹¹. It was also part of the project pipeline included in the St. Vincent and the Grenadine's Country Strategy Paper for the period 2008-2011.

¹⁰ AR: Chapter 1- CDB's Strategic Objectives and Poverty Goals, Page3, Paragraph 1.10. Paper BD108/12, December 12, 2012

¹¹AR: Chapter 1- CDB's Strategic Objectives and Poverty Goals, Page3, Paragraph 1.11. Paper BD108/12, December 12, 2012

3.03 The Project Completion Report (PCR) indicates that the project design was informed by a Feasibility Study funded by CDB and implemented by GOSVG through the Ministry of Transport and Works (MTW) with wide stakeholder consultation and conducted by specialists with significant expertise. It states that GOSVG and MTW were heavily involved in the preparation of the intervention and their commitment remained throughout the implementation period. The PCR adds that Lessons learned from related projects and other operations in SVG were applied to this project, which assisted in achieving the intended outcomes.

3.04 The Evaluator is of the view that the project design was Satisfactory and adequate to address the problem and needs that were identified in the AR.

Project Outputs

3.05 At appraisal, the project was scheduled to have been completed over the forty-month period, July 2013 to November 2016. The PCR states that the infrastructure works of the project which included the rehabilitation and upgrade of 11.4 km of SLH was eventually completed in February 2021. The PSR of January to December 2018, reported that the project experienced significant delays from start to completion. It also stated that the project was virtually completed by the first quarter of 2018, however, implementation was further delayed by approximately eighteen months due to the failure of GOSVG and the contractor to agree on a variation in scope of works of the project. The PSR noted that over USD3 mn of unallocated resources was undisbursed at the time and GOSVG formally requested approval for additional works on the project under an addendum to the existing contractor's contract.

3.06 The PCR reiterates that the project experienced significant delays from start to completion. It indicates that the project was also negatively impacted by the COVID 19 pandemic and various related restrictions and reductions in work force and work times, as well as the availability of material and equipment to complete the works. The PCR states that the implementation period was extended to facilitate the variations to the Contractor's contract to execute the additional works which included: (a) extension of road construction, and approximately 1 km of water and sewer mains replacement; (b) construction of additional sidewalks, junction modifications, safety barriers, road signs, and retaining structures within the project; and (c) road repairs to access roads used for detours during construction of the project road.

3.07 Under the Project Management component, the project provided for the engagement of a CLO by April 2013, whose overall responsibility was to formulate and implement the project's communication/stakeholder participation plan. The PCR states that the CLO was engaged in October 2013 and the services were satisfactorily executed and completed.

3.08 At appraisal, one of the planned outputs under the Institutional Strengthening component was the procurement and commissioning of four portable weigh scales by October 2013. The PCR indicates that the vehicle weigh scales component of the project was not implemented due to a lack of counterpart funding to cover the deficit in cost based on the proposals received for the equipment. It was expected at appraisal that the implementation of this component would have also enhanced MTW and The Roads, Buildings and General Services Authority's (BRAGSA) capacity, through training, in the use of vehicle control equipment. A vehicle weight control study was another planned output under this component which the PCR states was not executed since the component was not implemented.

3.09 As indicated in the matrix below, the major output of the project, the Rehabilitation and Upgrade of the corridor from Kingstown to Layout, was completed in 2021, along with one other output, after a protracted period of eight and a half years.

MATRIX OF PROJECT OUTPUTS

Number	Planned Outputs	Target Achieved
1	Chief Liaison Officer engaged by April 2013	Yes
2	11.4 km corridor from Kingstown to Layou rehabilitated and upgraded by October 2017	Yes
3	Procurement and commissioning of four portable weigh scales by October 2013	No
4	Vehicle weight Control Study completed by October 2013	No
5	Ten BRAGSA/MTW staff trained to use weigh scales	No
6	At least eight SLH upgrade awareness meetings held by January 2015	No Evidence (NE)
7	Number and magnitude of complaints and observed infractions of environmental guidelines – target is no complaints/significant infractions associated with construction.	NE
8	Monthly rate of compliance with Environmental and Social Management Plan (ESMP) is no less than 90%.	NE

Project Cost and Disbursements

3.10 The PCR provides the matrix of project costs and financing plan (PCFP) below that shows differences between the appraised and actual costs. The estimated cost of the project at appraisal was \$43.71 mn (USD16.19 mn). The project was to be financed by a CDB loan of USD13.628 mn, a CDB grant of USD0.051 mn and counterpart financing of USD 2.511 mn provided by GOSVG. The PCR estimates actual project costs as USD15.717.

MATRIX OF PROJECT COSTS AND FINANCING PLAN
(USD '000)

Item	CDB		Variance	GOSVG		Variance
	Planned	Actual		Planned	Actual	
Land	-	-	-	180	180	-
Infrastructure Works	10,333	11,889	1556	-	-	-
Equipment	22	-	(22)			
Engineering and Construction-related Services	-	1,161	1,161	1445	916	(529)
Institutional Strengthening (Grant)	44	-	(44)	26	-	(26)
Project Management	-	-	-	625	1,000	375
Physical Contingency	1557	-	(1557)	112	-	(112)
Price Contingency	993	-	(993)	123	-	(123)
IDC and Commitment Charge	730	571	(159)	-	-	
Total Project Cost	13,679	13,621	(58)	2,511	2,096	(415)

3.11 The PCFP does not provide any reasons for differences between the revised appraisal estimates and actual project costs. As indicated in Table 3, the costs of Road Rehabilitation and Upgrade Works exceeded the revised appraisal estimates by approximately XCD 4.2 mn (USD1.56 mn) while the cost of engineering and construction-related services exceeded revised estimates by approximately XCD1.71 mn (USD0.632

mn). The cost of Project Management also exceeded the revised appraisal estimates by approximately XCD1.01mn (USD 0.37 mn). Engineering and Construction-related services; and Project Management costs were approved to be financed under the project’s counterpart contribution. The Evaluator notes the reallocation of costs for engineering and construction-related services in the amount of approximately USD1.16 mn from the project’s counterpart contribution to the CDB financing component. The PCR gives no explanation for the reallocation.

TABLE 3: SUMMARY OF REVISED AND ACTUAL PROJECT COSTS
(S’000)

Item	Revised Project Costs¹²	PCR’S Total Actual Costs	Variance from Actual Cost
Land	486	486	-
Road Rehabilitation and Upgrade Works	27,900	32,100	(4,200)
Engineering Services - Upgrade and Design Study; and Supervision	3,902	5,608	(1,706)
Project Management	1,686	2,700	(1,014)
Institutional Strengthening - Consultancy	190	-	-
Institutional Strengthening- Equipment	59	-	-
Base Costs	34,223	40,894	
Physical Contingency	4,506	-	
Price Contingency	3,013	-	
IDC and Commitment Charge	1,971	1,542	429
Total Cost¹³	43,713	42,436	1,277
USD Equivalent	16,190	15,717	473

Disbursements

3.12 According to CDB’s records in respect of Loan No. 18/SFR-OR-STV, after the closing date of December 31, 2021, the entire amount of the SFR Portion (USD7,106,000) was withdrawn from the SFR Loan Account; and an amount of USD6,513,499.91 was withdrawn from the Ordinary Capital Account (OCR) Portion (USD6.522,000) leaving an unwithdrawn balance of USD8,500.09 from OCR Loan Account. Total funds disbursed therefore amounted to USD13,619,499.91. The Grant component of USD51,000 was undisbursed.

Conditions and Covenants, Procurement and Contractor Performance

Conditions and Covenants

3.13 The Evaluator notes that while the PCR includes Covenant compliance in the PCR checklist of key success factors influencing output delivery it does not discuss the significance of any particular conditions of the Loan Agreement or the Borrower/Executing Agency compliance with loan conditions.

¹² Planned Costs of completed components totaled approximately \$43.5 mn (USD16.1 mn).

¹³ Institutional strengthening component for XCD 0.249 mn (USD 0.09 mn) was not implemented.

Contractor/Consultant Performance

3.14 The PCR states that the Contractor performed well during the implementation, pivoting based on the various challenges experienced including restrictions and limitations associated with COVID-19, to complete the infrastructure works under the project within budget. It also states that the Consultant was generally responsive and provided the relevant supervision and engineering management in a timely manner.

Monitoring and Evaluation Design, Implementation and Utilisation

3.15 The AR specifies the reports that were to be prepared during project implementation, including monthly, quarterly, and annual reports. The Project Supervision Reports (PSRs)¹⁴ and PCR¹⁵ provide inadequate information on the indicators during implementation. The PCR states that timely reporting on the project was limited heavily due to capacity constraints from MTW and also other compounding factors of COVID-19 and the post COVID-19 period through which the project was implemented. It points out, however, that notwithstanding the challenges experienced during implementation, the procurement requirements and technical specifications ensured that the works complied with appropriate industry standards and were undertaken by suitably experienced and qualified personnel.

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATIONS)

Relevance

4.01 The PCR rates Relevance as Highly Satisfactory. It states that the project remains consistent with CDB's Strategic Objective at the time of appraisal of promoting broad-based economic growth and social development of its BMCs and its Corporate Priority of strengthening and modernising social and economic infrastructure. The PCR states that it is also in alignment with the Strategic Theme set out in the Resolution and Report of Contributors on SDF7 of promoting the economic opportunities and productive capabilities of the poor through measures to improve the livelihood of poor people. The PCR points out that the project was part of the project pipeline included in CDB's St. Vincent and the Grenadine's Country Strategy Paper (CSP) for the period 2008-2011. The PSR of January to December 2018 also states that the project was included in GOSVG's National Economic and Social Development Plans 2013 2025.

4.02 The PCR notes that SLH is the only continuous road between Buccament and Kingstown. It states that the Project contributes significantly to GOSVG's industrial, commercial, tourism and agricultural development plans. The PCR adds that the project represents an essential infrastructural upgrade initiative along the Leeward side of St. Vincent (from the nation's capital to the town of Layou on the north-west coast) and is therefore pivotal to the country's medium and long-term economic development.

4.03 In light of the foregoing and the substantial extent to which the objectives and expected impact of the project were consistent with the beneficiaries' requirements, country needs, macroeconomic and sector policy framework; as well as CDB's country and sector strategies, and its overarching goal of poverty reduction through sustainable economic growth, the Evaluator concurs with the rating of **Highly Satisfactory**.

¹⁴ Only 2 Annual PSRs were available during 8-year period of project implementation.

¹⁵ PCR: Section 2.4- Effectiveness, Page 19, Paragraphs 1 and 4;
PCR: Section 3.3 - Efficiency, Page 20, Paragraph 2.

Effectiveness

4.04 The planned outputs identified in the AR and the targets achieved are presented at Table 5

TABLE 5: MATRIX OF PROJECT OUTPUTS

Number	Planned Outputs	Target Achieved
1	Chief Liaison Officer engaged by April 2013.	Yes (October 2013)
2	11.4 km corridor from Kingstown to Layou (SLH) rehabilitated and upgraded by October 2017.	Yes (completed in April 2021)
3	Procurement and commissioning of four portable weigh scales by October 2013	No
4	Vehicle weight Control Study completed by October 2013.	No
5	Ten BRAGSA/MTW staff trained to use weigh scales.	No
6	At least eight SLH upgrade awareness meetings held by January 2015.	No Evidence (NE)
7	Number and magnitude of complaints and observed infractions of environmental guidelines – target is no complaints/significant infractions associated with construction.	NE
8	Monthly rate of compliance with Environmental and Social Management Plan (ESMP) is no less than 90%.	NE

4.05 The PCR rates Effectiveness as **Marginally Unsatisfactory**. In its justification, it states that the project objectives were substantially achieved through the provision of an upgraded and safe SLH, with the SLH being made safer and more efficient as a result of the rehabilitation and upgrade works completed. It adds that the defined objectives of the project were realistic and met the requirements of the various stakeholders, although capacity constraints led to insufficient reporting and data collection to verify the full qualitative project effectiveness at completion.

4.06 The PCR states that implementation during the COVID-19 pandemic period negatively impacted the counterpart funding available to the project. It adds that the inability to complete the Vehicle Weight Control (VWC) component due to a lack of funding under the project negatively impacted the project’s ability to provide guidance to reduce maintenance costs associated with uncontrolled heavy loading of roads and bridges which was necessary for the further improvement of resource utilization.

4.07 The PCR points out that the Highway Development and Management Model (HDM) 4 analysis on completion of the works was not completed under the project but will be implemented under another CDB-funded project within Q1 2025 to re-assess the parameters of the highway post-construction and qualitatively measure the impacts of the project. The PCR reiterates that the effectiveness of the project at completion has been graded ‘Marginally Unsatisfactory’ owing to the components that were not completed and the inability of the project to achieve the objectives related to those uncompleted components.

4.08 **Evaluator Assessment:** The PCR provides performance measurement data for 5 of 8 planned outputs. Two of these were Satisfactorily achieved and three were not achieved. As shown in Table 6, this equates to a rating of **Marginally Unsatisfactory**.

TABLE 6: SUMMARY RATINGS OF PROJECT OUTPUTS

No	Rating	Score
1	Satisfactory	3
2	Satisfactory	3
3	Unsatisfactory	1
4	Unsatisfactory	1
5	Unsatisfactory	1
Average	Marginally Unsatisfactory	1.8 (9/5)

Achievement of Outcomes

4.09 The planned outcomes identified in the AR and the targets achieved are presented at Table 7.

TABLE 7: MATRIX OF PROJECT OUTCOMES

Number	Outcome Indicator	Target Value	Actual Value	Target Achieved
1	Savings in annual average Vehicle Operating Costs (VOC) of \$3.6 mn.	3.6 mn	NE	NE
2	Reduction in number of hours-of-service disruption due to flooding at rear entrance of MCMH by 80% by 2016.	80%	NE	NE
3	Savings in average annual travel time costs of \$4.4 mn p.a.	4.4 mn	NE	NE
4	Improved riding quality of SLH measured by reduction in roughness from an average International Roughness Index (IRI) of 5 to 2	2	NE	NE

4.10 **PCR Assessment:** The PCR does not rate the achievement of outcomes but provides an explanation for the variance between the expected outcome and the actual result.

4.11 With respect to project outcome (i) relating to savings in annual average VOC of \$3.6 mn, the PCR states that no data were available from reports prepared by MTW or other related agencies and HDM4 analysis at completion is not yet completed. It also states that outputs from the VWC Component are also not available to inform the outcome. However, it is expected that transportation within the SLH has been made more efficient as a result of the completed rehabilitation and upgrade works.

4.12 In the case of outcome (ii) regarding the reduction in number of hours-of-service disruption due to flooding at rear entrance of MCMH by 80% by 2016, the PCR states that no data was available from reports prepared by MTW or other related agencies and HDM4 analysis at project completion is not yet completed. It adds that however, the measures designed to significantly reduce the volume of water reaching the MCMH were implemented.

4.13 With regard to outcome (iii) on the savings in average annual travel time costs of \$4.4 mn per annum the PCR states that while it was possible that the loan beneficiaries might have records of their energy savings, such information was not collected by Development Finance Corporation as part of the client records required to satisfy the Design and Monitoring Framework.

4.14 With respect to outcome (iv) on Improved riding quality of SLH measured by reduction in roughness from an average International Roughness Index (IRI) of 5 to 2, the PSR states that no data was available from reports prepared by MTW or other related agencies and HDM4 analysis at project completion had been completed as of December 2024. It further states that the upgrades to the SLH will result in improved riding quality and reduced roughness value.

4.15 **Evaluator Assessment:** The PCR does not provide performance measurement data for any of the project outcomes. As such the Evaluator is unable to rate the project outcome criterion,

Rating of Effectiveness

4.16 **PCR Assessment:** The PCR gives a rating of **Marginally Unsatisfactory** for achievement of Outputs; but gives no rating or measurable data for project outcomes.

4.17 **Evaluator's Assessment:** Based on the Evaluator's rating of Outputs (**Marginally Unsatisfactory** with a score of 2) and the absence of data for project outcomes., the Evaluator assesses Effectiveness on the basis of the achievement of project outputs only and rates Effectiveness as **Marginally Unsatisfactory**

Efficiency

4.18 The PCR rates Efficiency as Satisfactory. It states that the project experienced significant delays from start to completion, including impacts as a result of the COVID-19 pandemic and points out that the project was completed within budget and that the project scope was substantially completed with the exception of the VWC components. The PCR further states that the long-term benefits of the Project to St. Vincent and the Grenadines are still expected to outweigh the costs. It adds that the Project has contributed to the achievement of significant social, economic, and environmental benefits.

4.19 The PCR states that the costs involved in achievement of the objectives of the intervention were reasonable compared with both the benefits and recognised norms. It indicates that at project completion, the revised Economic Rate of Return (ERR) could not be recalculated due to the unavailability of updated traffic counts, revised assumptions, and the necessary HDM4 model. It adds that nevertheless, the project's contribution to the economy of Saint Vincent and the Grenadines has been both significant and noteworthy. The PCR states that evidence of increased economic activity includes the establishment of a resort and several new micro-enterprises along the route, indicating a tangible boost in local commerce and entrepreneurship. Additionally, it points out that the improved road quality has enhanced accessibility to the island's tourism sites and attractions, supporting this vital sector.

4.20 According to the PCR, the economic benefits derived from the project are likely to surpass the original ERR estimate of 24%, given the correlation between traffic volumes, economic activity, and infrastructure usage. The PCR further states that the completion of the project within budget reinforces its cost-effectiveness and efficient resource management. It indicates that these factors, improved GDP growth, inferred traffic volume increases, cost efficiency, and observed economic activity strongly indicate that the project has delivered strong economic returns.

4.21 Project implementation suffered delays of about five years resulting in the revision of the original Terminal Disbursement Date (TDD) from November 2016 to December 2021. Delays in implementation were mainly caused by disruptions from COVID-19, suspension of services of the Consultant Engineer and issues over the Contractor's contractual agreement. The PSR of 2016 reported that project implementation was delayed by approximately 10 months and indicated that part of the delay was due to GOSVG's failure to resolve payment to the Engineering Consultant responsible for supervision, which caused a suspension in the Consultant's services for approximately three months. In addition, according to the PSR, there

were 118 variations issued on the contract which contributed to further delays. The PSR of 2018 and the PCR indicate that there were further protracted implementation delays of approximately 18 months due to GOSVG's failure to agree to a variation to increase the scope of the project. The PCR states that all aspects of the project experienced delays and cost increases. The project was eventually completed in December 2021.

4.22 In view of the foregoing, notwithstanding the completion of the project within budget at approximately 98% of estimated cost, the Evaluator disagrees with the PCR rating of Satisfactory and rates this criterion as **Marginally Unsatisfactory**.

Sustainability

4.23 The PCR rates Sustainability as **Satisfactory**. It states that the intended benefits of the project are likely to be actualised over its full intended life and continue after completion of the intervention. The PCR adds that it is highly likely that the human, institutional, financial, and natural resources will be sufficient to maintain the expected outcome over the economic lifetime of the intervention.

4.24 The PCR further states that the increased efficiency and safety of road transportation along the Leeward section of St. Vincent between the capital city, Kingstown, and the town of Layou was expected to be achieved. It indicates that GOSVG is currently developing a Road Asset Management System (RAMS) to assist with the development of a comprehensive road maintenance programme. The PCR states that GOSVG/MTW/BRAGSA staff will also be trained in the use of HDM4 to complement the RAMS system and strengthen their planning and execution of maintenance activities. It adds that a VWC system should however be implemented to eliminate the impact of overloading, reduce maintenance costs and continued sustainability of the project outcome. The PCR indicates that since the SLH is a critical route within SVG, GOSVG's commitment to its maintenance and effective management remains strong. In rating this criterion, the Evaluator is mindful that some components of the project were either not implemented or reallocated from the Borrower's contribution during implementation due to the inability of the Borrower to fully meet its counterpart contribution.

4.25 One of the lessons of experience which informed the design of the project highlights the importance of procuring weigh scales early in the project cycle to facilitate integration into the operational systems of the implementing agency¹⁶. The PCR states that GOSVG's inability to complete the VWC component due to a lack of funding under the project negatively impacted the project's ability to provide guidance to reduce maintenance costs associated with uncontrolled heavy loading of roads and bridges, thereby further improving resource utilization. Under the project, it was expected that the weigh scales would be procured and commissioned to facilitate the commencement of the Vehicle Weight Consultancy, as information collected from the Axle Load Surveys would inform the output of the Vehicle Weight Consultancy deliverable.

4.26 The AR states, in part, that sustainability of the project will depend on GOSVG's provision of adequate resources to undertake planned maintenance of the project infrastructure; and the commitment of GOSVG to implement recommended measures of the Vehicle Weight Control Study to mitigate overloading which reduces the road's life expectancy.¹⁷ However, the PCR states that the Institutional Strengthening component for consultancy services to conduct the axle load survey and improve VWC, and for the supply of four portable weigh scales and automatic traffic counters were not implemented. According to the PCR, tenders submitted for the portable weigh scales were above the budget, and institutional and counterpart funding arrangements were not in place to support this component.

¹⁶ BD Paper 108/12, page 9, Lessons Learned, paragraph 2.03 (e).

¹⁷ BD Paper 108/12, page 20, Sustainability and Risks, Paragraph 5.16 (a).

4.27 In light of GOSVG's challenges to mitigate overloading which could reduce the service life of the road pavement and reduce the user experience on the roadway; and GOSVG's likely inability to provide adequate resources to undertake timely road (routine and periodic) maintenance which could lead to delayed road maintenance and negatively impact pavement condition, safety and maintenance costs, the Evaluator disagrees with the PCR rating of Satisfactory and rates Sustainability as **Marginally Unsatisfactory**.

Performance of the Borrower and Executing Agency

4.28 The PCR rates Borrower performance as Marginally Unsatisfactory. In its justification of the rating, it states that protracted delays in agreeing on variation of works between GOSVG and the Contractor caused delays in completing the works. It notes that GOSVG however, met its procurement targets. The PCR further states that requests for disbursements were not submitted to facilitate timely payments to the Contractor and there were some issues with the submission of project reports. It adds that there was an issue with the availability of counterpart resources under the project, resulting in CDB undertaking payments to the Supervision Consultant, which was originally allocated to counterpart funding. It further states that there was also a lack of counterpart resources to cover the deficit in cost for the procurement of VHC equipment and the relevant training and capacity building. The PCR adds that GOSVG/MTW remained committed to the achievement of the objectives and completion of the project, despite the limitations and challenges experienced.

4.29 The Evaluator concurs with the PCR and rates Borrower Performance as **Marginally Unsatisfactory**.

Performance of the Caribbean Development Bank

4.30 The PCR rates CDB's performance as Satisfactory. It states that CDB staff provided effective and timely supervision related to the project; and responded in a timely manner for clarification/guidance on the disbursement of funds.

4.31 The Evaluator considers that the Quality at Entry of the project as reflected in the Design and Monitoring Framework demonstrated clear links between expected outcomes of the project and key goals of the country strategy. In addition, on the basis of the quality of supervision, support and guidance during implementation, the Evaluator concurs with the **Satisfactory** rating of the PCR.

5. OVERALL ASSESSMENT

5.01 The PCR rates overall project performance as Satisfactory. Based on the foregoing analysis and available data, the Evaluator assigns a rating of Marginally Unsatisfactory to overall project performance. This rating is based on an arithmetic average of the total scores from assessments of the core evaluation criteria: Relevance (Highly Satisfactory); Effectiveness (Marginally Unsatisfactory); Efficiency (Marginally Unsatisfactory); and Sustainability (Marginally Unsatisfactory).

5.02 The lower rating in the case of Effectiveness, is due to the assessment of this criterion based on the performance of project outputs only, as no measurable data was available for project outcomes. With regard to Efficiency, the lower rating was due to inordinate implementation delays and cost increases in all aspects of the project. GOSVG's challenges to undertake timely road maintenance and the non-implementation of the Institutional Strengthening component of the project resulted in the lower rating for this criterion. These ratings are shown in Table 8.

TABLE 8: SUMMARY RATINGS OF CORE EVALUATION CRITERIA AND OVERALL ASSESSMENT OF THE PROJECT

Criteria	PCR	OIE Review	Reason if any for Disagreement/Comment
Relevance	Highly Satisfactory (4)	Highly Satisfactory (4)	-
Effectiveness	Marginally Unsatisfactory (2)	Marginally Unsatisfactory (2)	Criterion assessed on the performance of project outputs only as no measurable data was available for outcomes.
Efficiency	Satisfactory (3)	Marginally Unsatisfactory (2)	Inordinate implementation delays and cost increases in most aspects of the project.
Sustainability	Satisfactory (3)	Marginally Unsatisfactory (2)	GOSVG's challenges to undertake timely road maintenance.
Composite (Aggregate) Performance Rating	Satisfactory (3)	Marginally Unsatisfactory (2.5)	Lower performance ratings by the Evaluator for Efficiency and Sustainability.
Borrower & EA Performance	Marginally Unsatisfactory	Marginally Unsatisfactory	-
CDB Performance	Satisfactory	Satisfactory	-
Quality of PCR	-	Marginally Unsatisfactory	

6. LESSONS OF THE PCR

6.01 The PCR identifies the following lessons learned from implementation:

1. Timely land acquisition
2. Scheduling of works to minimise disruption is a key requirement.
3. Timely stakeholder engagement is necessary to ensure project success.

6.02 The Evaluator agrees with the requirement for timeliness of land acquisition and would broaden Lesson 1 to read: Timely land acquisition for efficient project completion. In the case of Lesson 2, the Evaluator would qualify the statement to read: Strategic scheduling of works to minimise disruption is a key requirement. The Evaluator considers the lessons cited in the PCR to be important and does not have any disagreement with what has been proposed.

7. COMMENTS ON PCR QUALITY

7.01 The new PCR design is disjointed, deficient in information and difficult to follow. Information on specific components is not confined to one section but broken up over several pages in some cases. This is

unlike the structure of previous PCRs where each project component was rated and variances explained before moving on to another. The financial information in the Project Costs and Financial Plan (PCFP) is also deficient. The PCFP of the PCR does not provide explanations of differences in budget lines where actual expenses exceed planned expenses or where line items for Counterpart funding appears under CDB financing. In addition, the PCR uses rating descriptors in some sections that are outside of PAS. Example: Annex 1, pages 28 and 29, which uses ratings such as Highly Probable, Probable, Low Probability, Improbable, Very Unsatisfactory and Very Satisfactory. Based on the foregoing the Evaluator rates the quality of the PCR as **Marginally Unsatisfactory**.

8. DATA SOURCES FOR VALIDATION

8.01 The primary data sources for this validation exercise were CDB's AR, CDB's PSRs and Reports from CDB's Finance Department. The Evaluator also held discussions with several members of the PCR team and staff of the Projects and Finance Departments.

9. RECOMMENDATION FOR FOLLOW-UP

9.01 No follow-up for OIE is required. The Evaluator does not consider that a Project Performance Audit Report would provide significantly more information or identify other lessons than those contained in the PCR.

MANAGEMENT RESPONSE



MEMORANDUM

To: Strategic Advisory Team
thru Director, Projects Department

Subject: Management Response to Office of Independent Evaluation (OIE) Project Completion Validation Report – Fourth Road Project (South Leeward Highway Rehabilitation and Upgrade) – Saint Vincent and the Grenadines (18/SFR-OR-STV; GA 29/STV)

From: Division Chief (Ag.)
Economic Infrastructure Division (EID)

Date: February 6, 2026

The Project Completion Report (PCR) team for the captioned project would like to thank the Office of Independent Evaluation (OIE) for its assessment and findings presented in the Project Completion Validation Report (PCVR).

There is general agreement with the findings of the PCVR and the PCR assessments. OIE has incorporated comments of EID into the PCVR regarding the validation of information contained therein. The noted lessons on land acquisition, scheduling of works and stakeholder engagement continue to be relevant.

While the PCVR highlights increases in project component costs as a reason for a lower PCVR Efficiency rating, the PCR team notes that the total project cost did not exceed the cost at appraisal. Regarding the PCVR's lower Sustainability rating, the Government of St. Vincent and the Grenadines (GOSVG), through CDB, has undertaken other initiatives to improve GOSVG's road maintenance and management systems (Section VII, item 1). Such systems will help to further achieve the intended benefits of the project over its full life.

OIE's comments and rating on PCR quality are noted. CDB staff sought to align the training of GOSVG staff in the use of HDM-4 tools for economic analysis of road projects to also recalculate the ERR under this project. However, the timing did not align, contributing to the unavailability of that data. We also note the comments regarding the PCR format used. This is the OP365 format. The roll-out of the Bank's new Evaluation Policy and Manual and the training of Projects staff are expected to support consistency and an improvement in PCR quality.

Handwritten signature of William M. Ashby.

William M. Ashby
Division Chief (Ag.)
Economic Infrastructure Division

Handwritten signature of L. O'Reilly Lewis.

L. O'Reilly Lewis
Director, Projects Department

WMA/VNB:kd

cc. Mr. Roberto La Rovere, Head of Evaluation, Office of Independent Evaluation

CARIBBEAN DEVELOPMENT BANK



VALIDATION OF PROJECT COMPLETION REPORT

ON

Enhancing Sugarcane Farmers' Resilience to Natural Hazard Events 67/SFR-BZE – Belize

OFFICE OF INDEPENDENT EVALUATION (OIE)

LOAN NO.: BD26/20

29th September, 2025

PRN NO.: 73603

Head Office of Independent Evaluation	-	Roberto La Rovere
Evaluator	-	Katherine Liakos
Quality Control Reviewers	-	Luther St Ville

CURRENCY EQUIVALENT

Dollars (\$) throughout refer to United States dollars (USD) unless otherwise stated.

$$\begin{array}{l} \text{USD1.00} = \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} = \text{USD} \underline{\hspace{2cm}} \end{array}$$

ABBREVIATIONS

BMCs	Borrowing Member Countries
BSI	Belize Sugar Industries
CDB	Caribbean Development Bank
CSP	Country Strategy Paper
CSPE	Country Strategy and Programme Evaluation
DRS	Drought Recovery Scheme
EA	Executing agency
FAO	United Nations Food and Agricultural Organisation
GDP	Gross Domestic Product
GOBZ	Government of Belize
MED	Ministry of Economic Development
MAFE	Ministry of Agriculture, Food Security, and Enterprises
PCR	Project Completion Report
PMT	Project Management Team
SDF	Special Development Fund
SIRDI	Sugar Industry Research and Development Institute
TA	Technical Assistance

MEASURES AND EQUIVALENTS

1 metre (m)	=	3.281 feet (ft.)
1 kilometre (km)	=	0.621 mile (mi)
1 square metre (m ²)	=	10.756 square feet (ft ²)
1 square kilometre (km ²)	=	0.386 square mile (mi ²)
1 hectare (ha)	=	2.47 acres (ac)
1 tonne	=	0.98 ton (tn)
1 litre (l)	=	0.22 imperial gallons (ig)
1 cubic metre (m ³)	=	264.172 gallons (gals)
1 millimetre (mm)	=	0.039 inch (in)

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1. BASIC PROJECT DATA SHEET

Project Title	Enhancing Sugarcane Farmers Resilience to Natural Hazard Events		
Country	Belize		
Sector	Agriculture		
Loan No.	BD26/20		
Borrower	Government of Belize		
Implementing/Executing Agency	Ministry of Agriculture, Food Security, and Enterprises (MAFE) formerly Ministry of Agriculture and Immigration		
Disbursements (\$ mn)	CDB LOAN		
	OCR	SFR	Total
Loan Amount	0	1,013,000	1,013,000
Disbursed	0	1,013,000	1,013,000
Cancelled	0	0	0
Project Milestones	At Appraisal	Actual	Variance (months)
Board Approval		March 31, 2020	
Loan Agreement signed	June 30, 2020	July 2020	0
Loan Effectiveness ¹	June 30, 2020	July 2020	0
CDB Loan	At Appraisal	Actual	Variance (months)
First Disbursement Date	June 30, 2020	June 30, 2020	0
Terminal Disbursement Date	December 31, 2021	December 31, 2021	0
TDD Extensions (number)	0	0	0
Project Cost and Financing (\$ mn)	SFR- At Appraisal	SFR- Actual	Variance (mn)
CDB Loan	1,013,000	1,013,000	0
CDB Grant			
Other Loan			
Counterpart	176,000	176,000	0
Total	1,189,000	1,189,000	0
Terms	Interest Rate	Repayment	Grace Period
CDB Loan	1%	8 years	2 years
Other Loan			
Implementation	At Appraisal	Actual	Variance (months)
Start Date ²	June 30, 2020	July 2020	0
Completion Date	December 31, 2021	December 31, 2021	0
Implementation Period (years)		18	
Economic Rate of Return (%)	At Appraisal	PCR	PCVR
Original Loan			
Additional Loan			

¹ Date Conditions to First Disbursement satisfied.

² Implementation begins with satisfaction of conditions precedent

2. PROJECT DESCRIPTION

Rationale (context at appraisal)

Belize's agricultural sector is heavily dependent on sugar production, with most sugar cane grown in northern Belize (Orange Walk and Corozal areas), which accounts for 75% of the country's sugar output. The industry is entirely privately owned, with small farmers supplying two private sugar mills. Traditionally, small farmers in Orange Walk and Corozal operate as family units throughout different stages of the cultivation cycle, thereby strengthening social cohesion. From 2014-2019, sugar cane production grew from 1.2 million to 1.27 million tonnes, helped by a replanting project funded by the Caribbean Development Bank (CDB), the Government of Belize, and the European Union. The main processing facility, Belize Sugar Industries Limited, also increased its milling capacity.

However, the sector faces serious challenges from weather-related problems, particularly droughts. Northern Belize is especially vulnerable due to its flat landscape, lower rainfall, and minimal investment in irrigation and drainage infrastructure. The absence of agricultural risk transfer systems, and a difficult trading environment for the main agricultural commodities (in particular sugar) means that the livelihood of small-scale farmers – and the associated socio-economic conditions of households in farming communities and Belize in general – is highly vulnerable to shocks.³

In 2019, the region experienced one of the worst droughts since 1981, which devastated sugar cane production. The 2019/20 crop was expected to drop to just 0.9-1.0 million tonnes - a 30% decrease from the previous year. In response to this crisis, the Government of Belize declared a State of Emergency in September 2019. The CDB provided \$200,000 in emergency funding to help farmers recover. Various organizations have since begun working together to provide technical support and promote climate-smart farming practices.

To address long-term water management issues, Belize is working with international partners to improve irrigation and drainage systems. This includes building a database of land and water resources, strengthening weather monitoring capabilities, involving stakeholders in environmental decisions, and studying areas suitable for irrigation projects. The goal is to make the agricultural sector more resilient to climate change and weather shocks while supporting the country's economic development objectives.

The Government of Belize (GOBZ) applied to CDB for assistance in financing a project to assist sugarcane farmers in northern Belize to recover from the 2019 drought. The project was a follow-up to the cited CDB Disaster Management Emergency Relief Grant approved by the President on October 14, 2019.

Expected Impact

Enhancing Sugarcane Farmers' Resilience to Natural Hazard Events. Improved capacity of sugarcane farmers in northern Belize to restore production following the impact of the 2019 drought.

Objectives or Expected Outcomes

The objectives of the project were:

³³ Two Hundred and Eighty-Ninth Meeting of the Board Of Directors, Paper BD 26/20, Enhancing Sugarcane Farmers' Resilience to Natural Hazard Events (President's Recommendation No. 987)

- (a) Improved capacity of sugarcane farmers in northern Belize to restore production following the impact of the 2019 drought

Components and/or Outputs

Components

The Project consisted of the following components:

1. Capacity Building –

- a. Implementation of a Drought Recovery Scheme (DRS) to facilitate the provision, through a specially designed voucher programme, of inputs (planting material and agrochemicals) and services (land clearing and preparation) to sugarcane farmers in northern Belize impacted by the 2019 drought; and
- b. the provision of Technical Assistance (TA) to sugarcane farmers in climate smart agriculture practices and general sugarcane agronomy by the sugarcane farmers' associations, MAFE, BSI and SIRDI. The training is in keeping with general support to the industry by the respective entities. Extension Officers will conduct the training - through farm visits and group training – using training material and tools procured under previous projects, including the EU-financed Sugarcane Replanting Project. Approximately 1,200 farmers will benefit from the training over the life of the project

2. Project Management –

- a. A Project Management Team (PMT) was established, headed by the Chief Agricultural Officer within the MAFE.

Outputs

The planned outputs were:

(a) The provision, through a specially designed voucher programme, of inputs (planting material and agrochemicals) and services (land clearing and preparation) to sugarcane farmers in northern Belize impacted by the 2019 drought.

(b) The provision of Technical Assistance (TA) to sugarcane farmers in climate smart agriculture practices and general sugarcane agronomy by the sugarcane farmers' associations, MAFE, BSI and SIRDI.

Provision of Inputs

The project cost is estimated at \$1,188,600 which will be financed with resources from CDB and GOBZ. Physical contingencies of 5% were applied to project management.

The proposed project will be financed by:

- a. a loan to GOBZ of an amount not exceeding the equivalent of USD1,013,000 (the Loan) from CDB's SFR resources, representing 85% of project cost; and
- b. counterpart funding of not less than \$351,200 (USD175,600) representing 15% of project costs, to finance project management and reporting.

A summary of project costs and financing at appraisal is provided in Table 1.

**TABLE 1: SUMMARY OF PROJECT COSTS AND FINANCING
ESTIMATED AT APPRAISAL⁴**

Item	SDF 9 (CDB)	GOBZ	Total
1. Capacity Building	1,000,000	100,000	1,100,000
2. Project Management	-	72,000	72,000
Base Cost	1,000,000	172,000	1,172,000
Physical Contingencies	-	3,600	3,600
Interest During Implementation	13,000	-	13,000
Total Financing	1,013,000	175,000	1,188,000
<i>Composition (%)</i>	85%	15%	100%

A detailed breakdown of project costs and financing at appraisal is provided in Appendix 2.

Implementation Arrangements

The Ministry of Agriculture, Food Security, and Enterprises (MAFE) - formerly Ministry of Agriculture and Immigration-, through its Chief Agricultural Officer, responsible for project implementation. The project was implemented over a period of 18 months – July 2020 to December 31, 2021.

Project Management: A PMT was established and comprised a Project Coordinator and two District Agricultural Coordinators – Orange Walk and Corozal – with accounting, auditing and related support provided by administrative staff of the MAFE. The PMT was responsible for project coordination and management including implementation, monitoring, and reporting. The Chief Agricultural Officer⁵ MAFE was assigned as Project Coordinator and in partnership with the District Agricultural Coordinators, responsible for issuing vouchers to eligible farmers – in keeping with the procedures established for implementation of the Drought Recovery Scheme. It was a condition precedent to first disbursement that the PMT has been established, and the PC and DACs assigned.

Participation of Beneficiaries and Stakeholders: Project preparation was facilitated by a team from the FAO. The FAO team consulted/interviewed a wide range of stakeholders including senior Government officials; 40 farmers – male, female and youth; representatives of three sugarcane farmers' associations, the sugarcane miller – Belize Sugarcane Industry, four input suppliers and service providers. These consultations yielded feedback on stakeholders' experience, knowledge, and challenges on a wide range of issues including: the impact of the drought on sugarcane production and general socio-economic conditions of farmers and other members of the farming community; general sugarcane production practices; and the organisation of the sugarcane industry. The discussions provided opportunities for the voices of stakeholders to be heard and for local knowledge and expertise to be incorporate into project design and implementation. Multi-modal strategies, including community meetings and messaging via various social media platforms, were used to keep stakeholders abreast of progress and maintain buy-in. Although the CDB Project Coordinator had some knowledge of this, there was no reported evidence of these strategies other than community meetings.

⁴ Appraisal Document Page 11.

⁵ It is noted that in the project documentation various versions of this job title were used, including Chief Administrative Officer and Chief Executive Officer, however we clarify here that the position is Chief Agricultural Officer.

Identification of Risks and Mitigation Measures⁶

Major risks identified at appraisal related to project implementation and operation. The main risks to implementation that were anticipated were operational risks:

- a. Institutional capacity/coordinating: Limited capacity of service providers to deliver efficient services in a timely manner.
- b. Performance- Supplier/Consultant/Contractor: Sub-optimal performance of service providers and farm workers

Measures included in the project design to mitigate the operational risks were:

- (a) The MAFE and sugar industry stakeholders will provide support to build the capacity of new service providers, interested in participating in the programme.
- (b) MAFE, BSI and SIRDI will continue implementation of a capacity building programme designed to upgrade the skills of farmers and workers in the industry

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

The project was consistent with CDB's Strategic Objective "Supporting Inclusive and Sustainable Growth and Development", CDB's Corporate Priority "Support Agriculture and Rural Development and is aligned to CDB's Special Development Fund (SDF) 9 Strategic Theme "Supporting the achievement of SDG targets relevant to the Caribbean and promoting regional cooperation". The project is also consistent with GOBZ's policy objective to, 'support agriculture and rural development' and associated commitments to 'improve overall resilience to climate change and natural hazard events. By integrating climate-smart practices, drought recovery, and cross-sectoral collaboration (e.g., MAFE, SIRDI, and private providers), the project reinforces sustainable agricultural systems, poverty reduction, and alignment with regional and national development goals.

A consultative process was utilised for the planning and design of the proposed project. Project preparation was facilitated by a team from the FAO. As part of its review of the proposed Drought Recovery Scheme, FAO interviewed over 60 sugarcane farmers, leadership of the three sugarcane farmers' association, management of BSI, service providers, staff of MAFE and SIRDI. The process engaged yielded valuable feedback on stakeholder's experience, knowledge and challenges on a wide range of sugarcane production and farm management issues, and the overall impact of the drought. This feedback was instructive in making modifications to the design of the Drought Recovery Scheme⁷.

The OIE's Evaluation of Belize's Country (CSPE) 2016-2020⁸ commented that a pragmatic approach was adopted on the voucher distribution criteria in the sugarcane project, due to political pressures. Given the need to gain approval in time for the start of the new season, this pragmatism was key to starting the interventions supporting the intended progress.

⁶ Appraisal Document Page 17.

⁷ PAPER BD 26/20, ENHANCING SUGARCANE FARMERS RESILIENCE TO NATURAL HAZARD EVENTS – BELIZE, (President's Recommendation No. 987), MARCH 31, 2020

⁸ Belize CSPE 2016-2020 p.29, published February 2022

The appraisal document and results were robust enough to be able to demonstrate those results at the completion of the intervention (had they been achieved). Overall, the design and formulation were adequate to address the problems and needs that were identified in the appraisal report.

Project Outputs

The planned outputs and targets were:

Planned Outputs for Component 1	Achieved Outputs for Component 1
(a) The provision, through a specially designed voucher programme, of inputs (planting material and agrochemicals) and services (land clearing and preparation) to sugarcane farmers in northern Belize impacted by the 2019 drought. Target: 3,280 Sugarcane farmers in northern Belize receiving support under the project.	3,280 sugarcane farmers in northern Belize received support under the project.
Comment/Explanation: Output achieved within the project timeline (evaluator's rating: highly satisfactory).	
Planned Outputs for Component 2	Achieved Outputs for Component 2
The provision of Technical Assistance to sugarcane farmers in climate smart agriculture practices and general sugarcane agronomy by the sugarcane farmers' associations, MAFE, BSI and SIRDI. Target: 1,200 Stakeholders trained in improved production technology.	1,200 Stakeholders trained in improved production technology.
Comment/Explanation: Output achieved within the project timeline (evaluator's rating: highly satisfactory).	

Project Cost, Disbursements, Borrower Contribution and Conformance to Schedule

Project Cost

TABLE 2: SUMMARY OF ACTUAL PROJECT COSTS AND FINANCING

Item	Actual Project Cost and Financing			Appraisal Estimate	Variance (Actual - Appraisal) ^{1/}	
	CDB	<u>GOBZ + BENEFICI ARIES</u>	Total		(\$'000)	(%)
	(\$'000)					
Capacity Building	<u>1,000,000</u>	<u>100,000</u>		100,000	0	0
Project Management		<u>72,000</u>		72,000	0	0
Base Cost	<u>1,000,000</u>			172,000	0	0
Physical Contingencies		3,600		3,600	0	0
Financing Charges	13,000				0	0
Total Cost	<u>1,013,000</u>	<u>175,600</u>	1,188,600	1,188,600	0	0
Composition (%)	85	15	100			

^{1/} Contingencies were reallocated to project management (5%).

Disbursements

Disbursement of the Loan was agreed in accordance with CDB's Disbursement Guidelines (January 2019). The first disbursement was made in July 2020, within one month of the anticipated disbursement date of June 30, 2020. Funds were fully disbursed by CDB to the GOBZ before expiration of the Original Terminal Disbursement Date of December 31, 2021. GOBZ completed disbursements to target beneficiaries in keeping with the agreed allocation formula in the second quarter of 2022⁹. The source of funding was SDF 9.

Borrower Contribution

The Borrower (GOBZ) contributed to the Project an amount of three hundred and fifty-one thousand two hundred Belize dollars (BZE351,200) / one hundred and seventy-five thousand six hundred (USD175,600) as per the appraisal report and agreement.

Conformance to Schedule

The project was implemented over a period of 18 months – July 2020 to December 31, 2021, as per the original schedule.

Implementation Arrangements

The Ministry of Agriculture, Food Security, and Enterprises (MAFE) - formerly Ministry of Agriculture and Immigration-, through its Chief Executive Officer, was responsible for project implementation.

A Project Management Team (PMT) was established, comprising a Project Coordinator (PC) and two District Agricultural Coordinators (DACs) – Orange Walk and Corozal – with accounting, auditing and related support provided by administrative staff of the MAFE. The PMT was directly responsible for project coordination and management including implementation, monitoring, and reporting. The Chief Agricultural Officer MAFE shall be assigned as PC and in partnership with the DACs be responsible for issuing vouchers to eligible farmers – in keeping with the procedures established for implementation of the Drought Recovery Scheme. The TOR for the PMT/PC are presented at Appendix 6.4 of the appraisal document.

Conditions and Covenants

It was agreed that the loan would be repayable over 8 years following a grace period of 2 years, at a fixed interest rate of 1% p.a.

Covenant Compliance

- Clear Documentation: Three copies of vouchers (farmer, provider, MAFE) ensured accountability. Reimbursements required invoices and signed receipts, minimising fraud.
- Reconciliation: MAFE maintained detailed records for CDB audits, demonstrating strict adherence to financial protocols.

Project Management Unit

It was a condition precedent to first disbursement that the PMT has been established and the Project Coordinator and two District Agricultural Coordinators assigned.

⁹ As reported in the Project Supervision Report for the period 12/31/2021 - 12/30/2022

MAFE had successfully managed similar projects, providing a template for this initiative. Its technical teams were already engaged in supporting farmers, ensuring continuity and expertise.

Procurement

Procurement was conducted in accordance with the Procurement Policy for Projects Financed by CDB and the Procurement Procedures for Projects Financed by CDB (November, 2019).

Other Special Procurement Arrangements: Beneficiary farmers will purchase inputs and services from well-established entities – input suppliers and service providers – at prevailing market prices, with no restrictions on country eligibility.

No Procurement Waivers were required as part of the appraisal.

Consultant and Contractor Performance

The PCR states that project leveraged private sector service providers to deliver agricultural inputs and services, including planting materials, agrochemicals, and land preparation support. The Sugar Industry Research and Development Institute (SIRDI) provided technical advisory services and capacity-building in climate-smart agriculture and cane agronomy practices, reinforcing knowledge transfer and sustainable production techniques. Post-implementation stakeholder consultations (including by the Bank’s Office of Independent Evaluation) revealed high satisfaction levels among beneficiaries and MAFE regarding the performance of service providers. This validated the effectiveness of the procurement and service delivery mechanisms, which prioritised beneficiary-centric service delivery and adherence to project specifications. The alignment of service provider outputs with drought recovery objectives, coupled with positive feedback loops, underscores the success of the project’s implementation strategy.

Monitoring and Evaluation Design, Implementation and Utilisation

It was a condition of the Loan that MAFE would provide CDB with the Reports listed in Appendix 6.6 of the appraisal document within the timeframes specified, as below:

Report	Time of Submission to CDB
BAIMS Database of DRS Eligible Farmers – Name of Farmer, BAIMS #, Location of Farm, Sugarcane delivered during 2018/19 crop season.	On or before submission of the first request for CDB loan resources.
Quarterly Reports – Summary of Farmers who have received payments.	Within 30 days of the end of each Quarter.
Project Completion Report	No later than December 30, 2021.

It was decided that quarterly reports were not necessary in addition to the evidence submitted on eligible farmers and disbursements made.

The indicators, targets and reporting responsibilities are set out in the table below.

Indicator	Baseline	2020	2021	2022	Responsibility for data collection
1.1 Sugarcane production in northern Belize restored to pre-drought – 2018/19 crop – levels (Tonnes)	900,000; 6/30/2020	900,000	1,000,000	1,200,000	MAFE, SIRDI and BSI

1.1 Farmers benefiting from input and service support under the DRS (#)	0 1/31/2020	2,500	780	0	Project Manager
1.2 Stakeholders trained in improved production technology (#)	0 1/31/2020	600	600	0	MAFE Reports

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATION)

4.01 The following section outlines the ratings of the PCR, draws on comments from the PSR provided, and presents the Evaluator’s ratings for the criteria based on the data reviewed.

Relevance

The PCR concludes that the project was consistent with CDB’s Strategic Objective “Supporting Inclusive and Sustainable Growth and Development”, CDB’s Corporate Priority “Support Agriculture and Rural Development and is aligned to CDB’s Special Development Fund (SDF) 9 Strategic Theme “Supporting the achievement of SDG targets relevant to the Caribbean and promoting regional cooperation”. The project is also consistent with GOBZ’s policy objective to, ‘support agriculture and rural development’ and associated commitments to ‘improve overall resilience to climate change and natural hazard events. By integrating climate-smart practices, drought recovery, and cross-sectoral collaboration (e.g., MAFE, SIRD, and private providers), the project reinforces sustainable agricultural systems, poverty reduction, and alignment with regional and national development goals.

There was some consideration and discussion with BSI and local experts of alternative responses to tackle the problem. Farmers opposed certain elements in the original project design (e.g. the suggested use of a severity score to differentiate the support allocated among famers, and the idea of giving cash to farmers directly instead of using known suppliers). The FAO assessment also led to tweaks to design.

To avoid duplication or working at cross-purposes with previous TAs from CDB and/or other development partners the project team did a mapping of other development partners/interventions prior to completing the project design.

No rating was given in the PCR, however considering the above, the Evaluator concludes the project relevance was **Highly Satisfactory**.

Effectiveness

The project successfully implemented its core outcomes:

Outcomes: Sugarcane production reached 1.05 metric tonnes in 2025, a 16% increase from the baseline of 900,000 tonnes - this demonstrates restoration of pre-drought productivity levels, aligning with the project’s primary objective.

The consultative design process (involving FAO, Bank staff, farmers, and institutions) ensured interventions addressed root causes of production loss, while institutional collaboration and adaptive management (e.g., refining the voucher system) reinforced results. The surpassing of the target production levels, ahead of the estimated date, combined with successful output delivery and alignment with national strategies, underscores the project’s effectiveness in restoring production, building resilience, and meeting its stated objective.

Considering the previous, the Evaluator agrees with the PCR’s rating of **Highly Satisfactory**.

Efficiency

The PCR concludes that the project achieved high efficiency due to the following features:

- The planned outputs were achieved within the timeframe established at appraisal: The voucher system was effectively managed by MAFE, ensuring targeted distribution of planting materials, agrochemicals, and technical training. Stakeholders reported high satisfaction with service providers, and institutional systems like the farmer registry were strengthened.
- Strong institutional capacity and prior experience – both the MAFE and the Ministry of Economic Development (MED) had prior experience in the management of similar type projects. The assigned staff accordingly has the requisite technical capacity.
- Clear Eligibility Criteria - MAFE established clear eligibility criteria (only registered farmers and sugarcane production (using data from the processors) which streamlined beneficiary targeting and resource allocation
- Effective stakeholder engagement - Collaboration with farmers' associations enhanced trust and buy-in, aligning project outputs with farmer's needs. The early engagement resolved bottlenecks and engendered confidence in the methodology.
- Compliance with CDB requirements – Request for drawdown of resources was in keeping with Bank requirements. This revealed strong coordination among ministries (MED and MAFE) and made for the efficient processing of claims by the Bank.
- Streamlined coordination among stakeholders (e.g., SIRDI, farmers' associations) reduced administrative costs, while adherence to budgets and fiduciary standards ensured optimal value for money.

In speaking with the Project Coordinator, it was noted that to ensure appropriateness of the budget and efficiencies in economy of input, the project design drew primarily on local expertise, knowledge and national data from SIRDI and BSI to sense check budget and input costs. In addition, CDB was able to capitalise on expertise from FAO as they were engaged to carry out an assessment and gather stakeholder feedback which influenced the design and led to further efficiency gains.

Considering the above, the Evaluator agrees with the PCR's rating of **Highly Satisfactory**.

Sustainability

In the PSR for the period 12/31/2021 - 12/30/2022 a risk was identified around the sustainability of sugarcane production given continued natural hazard and price risks. The noted action plan was that GOBZ would continue to conduct research and implement measures to improve climate resilience in the sugarcane industry.

The PCR also noted two risks: 1) 'Farmer reluctance to register': Some sugarcane farmers initially hesitated to enrol in the MAFE's database due to fears of increased taxation. The mitigation measure was to organise awareness campaigns, information sessions, and registration drives with farmers' associations to clarify benefits over risks. 2) 'Sub-optimal performance of service providers and farm workers' was identified as a risk at appraisal. To mitigate this, MAFE recognised this deficiency during implementation and with SIRDI was active in training service providers in a range of areas including sugarcane agronomy, and safety protocols and technical skills in the operation of spray equipment and farm machinery.

The PCR emphasises that the project's sustainability rating reflects a focus on short-term recovery. It successfully mitigated immediate drought-induced losses by contributing to a restoration of sugarcane production and sustaining income streams for farmers and industry stakeholders:

- A critical sustainability dividend emerged through climate-smart agriculture training, which catalysed a shift to using more drought tolerant cultural practices and varieties and exploring the introduction of irrigation systems. These interventions are expected to enhance resilience-building leading to greater sustainability in sugarcane production.
- The inclusion of SIRDI and farmer associations facilitated dialogue on fostering a foundation for future climate-smart interventions.

The PCR concludes that the project sustainability is constrained by an overemphasis on crisis mitigation versus proactive adaptation. The integration of climate-smart practices represents a pivotal step toward resilience, but sustained institutional commitment and resource allocation toward climate-resilient infrastructure and policy frameworks are critical to elevate sustainability to a strong rating.

The project's moderate sustainability rating highlights several unresolved challenges that require attention to ensure long-term resilience in the sugarcane industry. Areas that require focus and follow up include:

Climate Resilience

- Insufficient water management infrastructure to address prolonged droughts or erratic rainfall: with many farmers still reliant on rain-fed systems there is a need to increase investment in, and adoption of irrigation.
- Lack of diversified crop portfolios or alternative livelihood strategies to buffer against future shocks.

Institutional Weaknesses

- Absence of formal mechanisms to mainstream climate resilience into agricultural policies or sector-wide planning.
- Limited capacity among local institutions to monitor, evaluate, or scale climate adaptation practices.

Policy and Financing Gaps

- No dedicated funding streams or policy frameworks to incentivise climate-resilient agriculture (e.g., subsidies for drip irrigation, insurance schemes).
- Weak coordination between government agencies, NGOs, and the private sector on climate adaptation.

Monitoring and Knowledge Gaps

- No robust system to track the long-term impact of climate-smart practices or measure climate resilience outcomes.

Similarly, the OIE's CSPE for Belize 2016-2020 reviewed this project and concluded that it was inconclusive whether the progress made is climate proof. While not at pre-drought levels, the cane crop has substantially improved compared with during/ immediately after the drought¹⁰.

The PCR noted several positive externalities:

- Environmental Benefits: Adoption of climate-smart agriculture (e.g., soil conservation, water-efficient irrigation) could improve soil health, benefiting and ecosystems beyond the project's direct beneficiaries.

¹⁰ Belize Country Strategy and Programme Evaluation 2016-2020, p 35, published February 2022

- Knowledge Spillover: Training provided to farmers – e.g. on drought-resistant practices - spilled over to non-participating farmers/other sugarcane farmer activities. This could further enhance agricultural resilience to natural hazards and climate change.
- Economic Multiplier Effects: The increase in Sugar cane production was higher than anticipated at appraisal. This increase is likely to boost demand for ancillary services (e.g., land preparation, transportation, input suppliers), creating jobs and further stimulating the economic activity in northern and wider Belize.

The PCR noted two negative externalities:

- Environmental Degradation: There is always a risk that if not properly managed/applied properly, use of agrochemicals (fertilizers, pesticides) provided through the project could contaminate water sources, harming ecosystems or human health.
- Market Oversupply: The increase in sugarcane production could exceed demand and depress sugarcane prices.

Overall, the Evaluator agrees with the PCR's rating of sustainability as **Satisfactory**.

Borrower and EA Performance

The Project Supervision Report for the period 12/31/2021 - 12/30/2022 reported that the project management was highly effective.

The PCR also concluded that MAFE's execution of the project was highly effective, leveraging an innovative voucher system to deliver timely drought relief while maintaining transparency and compliance. Its institutional capacity, bolstered by prior experience and strong stakeholder collaboration, ensured successful outcomes. While minor adjustments could have enhanced the project – e.g. an assignment of benefits based on the severity of the drought on different fields - the ministry's performance underscores its experience in managing such initiatives.

Key achievements include:

- The project successfully delivered drought relief to sugarcane farmers through the voucher system, ensuring funds were only directed to eligible beneficiaries.
- Vouchers were issued based on farmers' historical sugarcane production which was easily established through the records of the sole processor.
- The system enabled farmers to combine vouchers with their own resources, creating a multiplier effect and enhancing their capacity to recover from drought impacts.
- Stakeholder Engagement - MAFE collaborated with farmers' associations to conduct information sessions and mobile registration drives, increasing participation.
- Compliance - MAFE met all CDB requirements - funds were disbursed, documented and reconciled according to the agreed-upon conditions and Bank procedures

In terms of compliance with M&E and reporting, a Project Completion Report was produced, but quarterly reports were not deemed necessary due to the short duration and ample alternative evidence of the two

payments to farmers. Due to COVID-19 and travel restrictions it was not possible to conduct the satisfaction survey.

No rating was given in the PCR, however considering the above, the Evaluator concludes the Borrower Performance was **Highly Satisfactory**.

CDB Performance

According to the Project Supervision Report for the period 12/31/2021 - 12/30/2022, CDB staff provided the requisite support to the Project Management Team and to GOBZ in an efficient and timely manner. This included making recommendations on the process followed for the disbursement and documentation of funds to beneficiaries and the review/processing of requests for drawdown of resources

No rating was given in the PCR, however considering the above, and the overall success of the project, the Evaluator concludes the CDB Performance was **Highly Satisfactory**.

5. OVERALL PERFORMANCE RATING

Overall Performance Rating

5.01 The PCR does not provide an overall performance rating for the project. The Evaluator rates the overall performance of the project as **Highly Satisfactory**. The rating is based on the composite (aggregate) scores for relevance, effectiveness, efficiency and sustainability.

Lessons

5.02 The PCR identified three lessons learned from implementation of the project:

1. Institutionalising Climate-Smart Agriculture (CSA) operations requires an enabling environment. While training - in drip irrigation and climate-smart practices - sparked interest, adoption remained low due to insufficient infrastructure, financial support, and institutional backing.

CSA interventions must be paired with policy incentives (e.g., subsidies for equipment), access to financing, and community-level infrastructure (e.g., shared irrigation systems) to ensure scalability.

2. To maximise efficiency gains short-term relief must be paired with long-term climate resilience planning

The project prioritised crisis-driven interventions (e.g., drought recovery) over systemic adaptation. While restoring pre-drought production levels was essential, the project's narrow focus on mitigating drought impacts - rather than addressing root causes like underinvestment in climate resilient practices - limited its sustainability.

Future projects should integrate climate risk assessments and resilience-building measures into recovery plans from the outset.

3. Limited availability of financing for working capital can stifle adoption of climate resilience efforts
Lesson: The absence of dedicated funding for climate adaptation left farmers and service providers without incentives or resources for widespread adoption of resilient practices.

GOBZ and CDB should prioritise climate financing mechanisms (e.g. insurance schemes) to help catalyse the transition to a more climate-resilient sugarcane industry.

5.03 The Evaluator notes other lessons learned from the experiences of other MDBs that are relevant to this project:

6. RATINGS:

Criteria	PCR ¹¹	OIE Review	Reason, if any, for Disagreement/Comments
<i>Relevance</i>	No rating	HS (4)	
<i>Effectiveness</i>	HS (4)	HS (4)	
<i>Efficiency</i>	S (3)	HS (4)	Increased from Satisfactory rating from PCR, because the criteria a-k of the PAS manual are met.
<i>Sustainability</i>	S (3)	S (3)	
Composite (Aggregate) Performance Rating		15 = 3.75 Highly Satisfactory	
<i>Borrower & EA Performance</i>	No rating	HS (4)	
<i>CDB Performance</i>	No rating	HS (4)	
<i>Quality of PCR</i>	N/A	S (3)	Rating for Relevance missing; some sections were not fully completed but essential information is present.

7. COMMENTS ON PCR QUALITY

- 7.01 The Evaluator rates the PCR quality as **satisfactory** based on an assessment of:
- Clarity and conciseness;
 - Quality and completeness of evidence and analysis to support scores and ratings;
 - Identification of exogenous factors affecting project implementation and results;
 - Lessons of experience identified
 - Adequacy of evidence provided in the PCR and data provided by Operations Staff to support the validation process.

There were a few gaps in the PCR content: the rating for relevance is missing; some sections were not fully completed, but the essential information is present. Upon request, the Project Coordinator provided multiple other documents and email exchanges as evidence to fill any information gaps.

8. DATA SOURCES FOR VALIDATION

- CDB Appraisal Document: Two Hundred and Eighty-Ninth Meeting of the Board Of Directors, Paper BD 26/20, Enhancing Sugarcane Farmers' Resilience to Natural Hazard Events (President's Recommendation No. 987)
- PCR (no date on the PCR)
- Project Supervision Report for the period 12/31/2021 - 12/30/2022
- Project documents provided by CDB Staff : list of beneficiaries; relief certificate list; FAO analysis; COP 2019 Climate Change Adaptations; BAIMS Database of DRS Eligible Farmers
- Email correspondence between CDB Project Coordinator and Belize Sugar Industries regarding technical discussions on project design
- Letters from the Ministry of Food and Agriculture confirming appointment of PMT members.

9. RECOMMENDATIONS FOR OIE FOLLOW-UP

N/A

¹¹ PPES scores and ratings used in PCR and PSRs to be converted to PAS 2013 scores and ratings, using the equivalence matrix in the relevant PAS 2013 Manual (Public Sector Investment Lending and TA; Policy Based Lending; CSP).

MANAGEMENT RESPONSE



MEMORANDUM

To: Strategic Advisory Team
thru' Director (Ag) Projects Department

Subject: Management Response – Office of Independent Evaluation (OIE) Project Validation Report
Enhancing Sugarcane Farmers' Resilience to Natural Hazard Events - 67/SFR-BZE – Belize

From: Division Chief, Social Sector Division

Date: October 20, 2025

1. Introduction

Management of Projects Department, thanks the Office of Independent Evaluation (OIE) for its validation of the Project Completion Report (PCR) for the project, 'Enhancing Sugarcane Farmers' Resilience to Natural Hazard Events 67/SFR-BZE – Belize'.

2. Agreement with OIE's Overall Performance Rating

Management concurs fully with OIE's assessment that the overall project performance is **Highly Satisfactory** - based on the composite scores for the project's relevance, effectiveness, efficiency, and sustainability, as detailed in the PCR.

3. Response to the OIE Comment on the Omitted Overall Rating

OIE Comment: "The PCR does not provide an overall performance rating for the project. The Evaluator rates the overall performance of the project as *Highly Satisfactory*."

Management Response: Management accepts this comment. The omission of an explicit overall performance rating in the PCR was an oversight. We recognize that providing a clear, consolidated rating is a mandatory requirement for PCRs to ensure clarity and consistency for all stakeholders.

4. Conclusion

Management appreciates OIE's rigorous and constructive validation. We will reinforce internal quality control procedures to ensure that all future PCRs include a clearly stated overall performance rating, derived from and consistent with the detailed assessment of the standard evaluation criteria.

- 2 -

We are pleased with the successful completion and strong performance of the Project and believe it serves as a positive example for future operations and is reflective of the Bank's continued efforts at demonstrating its development effectiveness across BMCs.



Martin Baptiste, Ph. D.

LSTV:MB:em

Attachment

cc: Ms. Serena Rossignoli, Senior Evaluation Officer, OIE

PROJECT COST AND FINANCING PLAN

The table below shows a detailed breakdown of the project costs phasing and financing plan, as reported in the PCR (appendix 3.1).

Indicator	Baseline	Year 2020	Year 2021	Year 2022	Responsibility for Data Collection
1.1 Sugarcane production in northern Belize restored to pre-drought – 2018/19 crop – levels (Tonnes)	900,000; 6/30/2020	900,000	1,000,000	1,200,000	MFAI, SIRDI and BSI

Indicator	Baseline	Year 2020	Year 2021	Year 2022	Responsibility for Data Collection
1.1 Farmers benefiting from input and service support under the DRS (#)	0; 1/31/2020	2,500	780	0	PM
1.2 Stakeholders trained in improved production technology (#)	0; 1/31/2020	600	600	0	MFAI Reports

Components	SDF 9	Total	COUNTERPART		Total
	SDF Resources (Loans)		GOBZ	Executing Agency Counterpart Forecast	
2020 TOTAL					
Project Management		-	36,000	-	36,000
Capacity Building	600,000	600,000	60,000	-	660,000
Base Cost	600,000	600,000	96,000	-	696,000
Physical Contingency	-	-	1,800	-	1,800
Price Contingency	-	-	-	-	-
Total Project Cost	600,000	600,000	97,800	-	697,800
Interest During Implementation	2,813	2,813	-	-	2,813
Commitment Fees	-	-	-	-	-
Total Financing	602,813	602,813	97,800	-	700,613
Percentage Financing	86.04%	86.04%	13.96%	-	100.00%
2021 TOTAL					
Project Management		-	36,000	-	36,000
Capacity Building	400,000	400,000	40,000	-	440,000
Base Cost	400,000	400,000	76,000	-	476,000
Physical Contingency	-	-	1,800	-	1,800
Price Contingency	-	-	-	-	-
Total Project Cost	400,000	400,000	77,800	-	477,800
Interest During Implementation	10,187	10,187	-	-	10,187
Commitment Fees	-	-	-	-	-
Total Financing	410,187	410,187	77,800	-	487,987
Percentage Financing	84.06%	84.06%	15.94%	-	100.00%
TOTALS					
Project Management		-	72,000	-	72,000
Capacity Building	1,000,000	1,000,000	100,000	-	1,100,000
Base Cost	1,000,000	1,000,000	172,000	-	1,172,000
Physical Contingency	-	-	3,600	-	3,600
Price Contingency	-	-	-	-	-
Total Project Cost	1,000,000	1,000,000	175,600	-	1,175,600
Interest During Implementation	13,000	13,000	-	-	13,000
Commitment Fees	-	-	-	-	-
Total Financing	1,013,000	1,013,000	175,600	-	1,188,600
Percentage Financing	85.23%	85.23%	14.77%	-	100.00%

CARIBBEAN DEVELOPMENT BANK



VALIDATION OF PROJECT COMPLETION REPORT

ON

SEVENTH CONSOLIDATED LINE OF CREDIT

BELIZE

OFFICE OF INDEPENDENT EVALUATION (OIE)
December 2025

Loan No. 23/SFR-OR-BZE
PRN NO.: 3783

Head Office of Independent Evaluation
Evaluator
Quality Control Reviewers

- Dr. Roberto La Rovere
- Everton Clinton
- Katherine Liakos

CURRENCY EQUIVALENT

[Dollars (\$) throughout refer to Belize dollars (BZD) unless otherwise stated].

BZD1.00 = USD0.5

USD1.00 = BZD2.00

ABBREVIATIONS

AR	Appraisal Report
CDB	Caribbean Development Bank
DFC	Development Finance Corporation
EE	Energy Efficiency
FI	Financial Institutions
GOBZ	Government of Belize
LOC	Line of Credit
OCR	Ordinary Capital Resources
MSME	Micro, Small and Medium Enterprises
PCR	Project Completion Report
PPES	Project Performance Evaluation System
PSR	Project Supervision Report
mn	million
RE	Renewable Energy
SLS	Student Loan Scheme
SFR	Special Fund Resources
USD	United States dollars

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APPENDICES

APPENDIX 1: MANAGEMENT RESPONSE

1. BASIC PROJECT DATA

Project Title	Seventh Consolidated Line of Credit - Belize
Country	Belize
Sector	Financing
Loan No.	23/SFR-OR-BZE
Borrower	Development Finance Corporation (DFC)
Implementing/Executing Agency	DFC

<u>Approvals/Disbursements (\$ mn)</u>	<u>OCR</u>	<u>SFR</u>	<u>Total</u>
Loan Amount	8.5	2.00	10.50
Disbursed	8.5	2.00	10.50
UOF	-	0.086	0.086
Cancelled	0.00	0.00	0.00

<u>Project Milestones</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Board Approval	July 17,2014	July 17,2014	0
Loan Agreements signed	Dec 31, 2014	Dec 31, 2014	0
Loan Effectiveness ¹	Dec 31, 2014	Aug 25, 2015	7.83 months

<u>CDB Loan</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
First Disbursement Date (Loan)	Dec 31, 2014	Sep 29, 2015	9.97
Terminal Disbursement Date (Loan)	Dec 31,2017	Dec 31,2021	48.0
TDD Extensions (number)	-	4	-

<u>Terms</u>	<u>Interest Rate</u>	<u>Repayment</u>	<u>Grace Period</u>
CDB Loan (OCR)	3.95% (variable)	22 years	5 years (inclusive)
CDB Loan (SFR)	2.5% (fixed)	22 years	5 years(inclusive)
CDB Loan (SFR - EE/RE)	2.5% (fixed)	10 years	2 years(inclusive)

<u>Project Cost and Financing (\$ mn)</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance</u>
CDB Loan	10.50	10.50	0.00
UOF Counterpart	0.086	0.086	0.00
Total	10.586	10.586	0.0

<u>Implementation</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Start Date ²	Dec 31, 2014	Dec 31,2014	-
Completion Date	Dec 31, 2017	December 31,2021	48 months
Implementation Period (years)	3 years	7.00 years	48 months

<u>Economic rate of Return (%)</u>	Not Applicable
At Appraisal	

¹ Date conditions precedent to first disbursement satisfied.

² Implementation begins on the date the loan Agreement is signed.

2. PROJECT DESCRIPTION

Rationale

2.01 Several imperfections within the financial market of Belize constrained access to credit in the productive sectors among micro, small, and medium enterprises (MSMEs), and for low-income housing and student loans. Available evidence suggested that neither commercial banks nor credit unions were geared for project financing outside of the well-established and known sectors with relatively low project risks. Long-term lending was limited and offered against high collateral security requirements and relatively expensive financing for working capital and energy.

2.02 Such limiting factors reinforced the need for specialized credit agencies, such as the Development Finance Corporation (DFC), and set the context for DFC's role within the financial system to offer development assistance in priority sectors and provide affordable finance for development activities for which commercial banks had a diminished appetite. In this regard, DFC needed access to additional development resources to assist in capitalizing on investment possibilities in its core business areas and identified target market.

2.03 Given that MSMEs play a critical role in facilitating economic development as a provider of jobs, incomes, goods, and services, a component³ of the Line of Credit (LOC) specifically targeted microenterprise lending. Since DFC is not structured to provide direct lending to microenterprises, provision was made for DFC to on-lend resources to eligible financial institutions (FIs) that were better suited to provide services to microenterprises and deal with the high-risk nature of such lending. To make such resources more affordable to the participating FIs, it was proposed that Special Fund Resources (SFR) be used for on-lending by DFC to eligible FIs.

Expected Impact

2.04 The project was expected to contribute to the improvement of sustainable socio-economic development and economic growth of Belize.

Objectives or Expected Outcomes

2.05 The overall objective of the project was to enhance sustainable development, economic growth, and poverty reduction through a vibrant and expanding MSME sector, human resource development, and improvement in the quality of housing. Accordingly, the project was expected to:

- (a) increase the supply of skilled graduates from poor and vulnerable households;
- (b) improve the standard of living, investments, and net worth through home ownership for low and lower middle-income households and
- (c) increase the awareness and usage of EE/RE technology and be less dependent on fossil fuels.

³ AR: Chapter 3- Rationale, Page 23, Paragraph 1.02. Paper BD 51/14, July 17, 2014

Components and/or Outputs

2.06 The main outputs of the Project listed were:

- (a) at least 50 MSMEs, disaggregated by sex of ownership, benefit from the intervention by December 31, 2017;
- (b) at least 200 students, disaggregated by sex, completed or engaged in their tertiary level training programmes by December 31, 2017;
- (c) at least 150 low to lower middle-income households receive loans by December 31, 2017;
- (d) Audits and business plans completed for at least seven MSMEs or EE/RE financing by March 31, 2015;
- (e) Resources available to at least two FIs involved in funding micro enterprises by December 31, 2017;
- (f) at least 25 MSMEs identified for preliminary walk-through audits by December 31, 2017;
- (g) at least 10 MSMEs identified for full EE/RE projects by December 31, 2017; and
- (h) at least seven MSMEs implementing EE/RE projects by December 31, 2017

Provision of Inputs

2.07 In July 2014, the Caribbean Development Bank (CDB) approved a loan in the amount of USD10.5 million (mn) to the DFC under guarantee of the Government of Belize (GOBZ) to assist in providing finance for the priority sectors including student loans, small and medium sized enterprises credit, low-income housing, and EE/RE. CDB also approved the Use of Funds to DFC of USD85,920 for consultancy services to assist in the implementation of the Pilot EE/RE programme.

Implementation Arrangements

2.08 DFC was responsible for the implementation and overall management of the project. DFC also had responsibility for managing the resources of the CDB loan and ensuring that systems were in place to monitor the elements of sub-loans in order to provide CDB with relevant data and information to assess the developmental impact and outcomes of the project. DFC was responsible for meeting the financial and managerial performance levels that satisfied CDB's eligibility and targets. CDB supervised the use of loan resources of the project.

Identification of Risks and Mitigation Measures

2.09 The Appraisal Report (AR) states that the project carried several risks to CDB, DFC, and GOBZ as guarantor of the loan. To address these risks, the project proposed the establishment and management of various mitigation measures through a framework of measurement, monitoring, control policies, and procedures.

2.10 One of the risks identified at appraisal was the credit risk of financial loss to CDB in the event that DFC was unable to repay the loan. This risk was mitigated by an agreement between CDB and GOBZ to provide CDB with a sovereign guarantee. In the case of DFC, the main sources of credit risk

identified were the appraisal process of sub-loans and the impact of changes in the economic environment on the ability of the sub-loan borrowers to meet their obligations in accordance with agreed terms. This risk was mitigated through the retention and training of staff with experience in loan appraisal, implementing acceptable policies and procedures that support good corporate governance, and strengthening DFC's ability to collect debt service on its sub-loans.

2.11 Another risk identified at appraisal was market risk, which encompassed currency and interest rate risks. The currency risk was eliminated for CDB since the loan was denominated and repayable to CDB in USD, thereby avoiding potential financial loss from any future changes in currency rates.

2.12 The impact of adverse changes in interest rates was identified as another risk at appraisal. The AR states that CDB's resources were lent at variable interest rates and under the dictate of CDB. It points out that the extent to which CDB was prepared to pass on any changes in its interest rates to DFC was dependent on its income targeting to reflect prevailing and anticipated market conditions. To ensure a similar measure of protection to DFC, the project proposed the inclusion of a similar provision for variable interest rates in all sub-loan agreements of DFC.

2.13 Operational risks arising from direct or indirect loss or damage to reputation which may be attributable to fraud, human error, processes, or technological internal controls, were also identified as a risk faced by the project. Part of the mitigation measures proposed to address this risk was the provision of quality management, comprising a fraud framework as well as staff training.

2.14 The limited capacity of DFC's management information system was identified as another risk. To mitigate this risk, the project proposed upgrading both accounting and loan management software systems with full benefits expected by 2015.

2.15 The AR states that the project may present varying levels of negative environmental and social risks arising from sub-loans made in key sectors such as agriculture, energy, manufacturing, agribusiness, and tourism. The project sought to mitigate these risks by implementing an effective environmental policy framework to identify and manage the risks throughout the project cycle. In addition, as part of the project launch activities, CDB staff conducted training sessions for DFC staff to sensitize them on new approaches and considerations in managing environmental and social risks in financial intermediaries.

3. EVALUATION OF DESIGN AND IMPLEMENTATION

Relevance of Design and Formulation

3.01 The Project Completion Report (PCR) states that the project was consistent with national development priorities as well as with CDB's strategic focus and priorities. However, it also notes that while the design features of the project incorporated all the sector components typical for financial intermediary lending both the mortgage and micro finance components encountered challenges with execution, and resources allocated were redeployed.

3.02 The PCR indicates that the LOC, which spanned two Country Strategy Papers from 2015 to 2020, contributed positively to both strategies by providing financial resources in critical areas, including student loans, SMEs, and low-income housing, while also aiming to support EE/RE initiatives. It emphasises that the focus areas of education, housing, productive sector and EE/RE remain relevant with increased demand given a general improvement in macroeconomic conditions in Belize.

3.03 Overall, the Evaluator is of the view that the project design and formulation were satisfactory and adequate to address the problem and needs that were identified in the AR.

Project Outputs

3.04 The PCR does not assess implementation progress in the standard format⁴. It states that regarding the improved viability and growth of MSMEs, DFC performed well with allocation under this component, surpassing the target, even in circumstances where there was appetite for larger sub-loans from beneficiaries. It adds that sub-loans were allocated to a range of sectors, with males being the most significant beneficiaries. The PCR acknowledges that no evidence was made available to indicate that business plans were prepared by the consultant to support DFC's investment decision. However, the PCR indicates that while this target was not achieved, the consultants determined that, following walkthrough assessments of 29 SMEs, some of them did not require further detailed energy audits, as the information gathered was sufficient for them to make an investment decision. It adds that the Consultant recommended seven SMEs from the initial walkthrough assessments that could be assisted for more detailed energy audits.

3.05 The PCR states that no funding from CDB resources was on-lent to microfinance institutions, given an absence of demand, high liquidity within the financial system of Belize, and a weak microfinance institutional network. It further states that this allocation had to be reassigned for another purpose where Special Development Fund resources could be used. The PCR indicates that while the estimated number of MSMEs received walk-through audits, there was a lack of appetite for audits, which had to be paid for by SMEs. It states that the number of beneficiaries (91 of which 65 were males) fell short of the projected level following challenges experienced by DFC with competition from commercial banks that offered lower interest rates and longer tenor, resulting in 59% of the allocation being disbursed. The PCR states that under the Student Loans Scheme (SLS), DFC performed well with credit allocation under this component, surpassing the target of 843 student loan beneficiaries receiving financial assistance 58.8% of whom were females. However, it adds that DFC needs to include in its data capture, the tracking of student loan beneficiaries after graduation.

3.06 Table 1 indicates that four of the eight expected outputs were fully achieved, with two substantially achieved by December 31, 2021, albeit after a four-year extension to the original terminal disbursement date. Prior to this extension, the largest project output, financed under the Agricultural and Industrial Credit component of USD4 mn was fully disbursed by the original terminal disbursement date of December 31, 2017. The increased allocation for the SLS from USD2 mn to USD3.5 mn was fully disbursed at project completion date.

⁴ Design of previous PCR format required a PAS rating for the implementation progress of each component.

TABLE 1: MATRIX OF PROJECTS OUTPUTS

Number	Planned Outputs at Appraisal	Target Value	Number of Outputs Achieved	Target Achieved
1	At least 50 MSMEs, disaggregated by sex of ownership, benefit for the intervention by 2017.	50	310	Yes
2	Audits and business plans completed for at least seven MSMEs or EE/RE financing by March 31, 2015.	7	0	No
3	At least 10 MSMEs identified for full EE/RE audits by 2017.	10	7	70%
4	At least seven MSMEs implementing EE/RE projects by 2017.	7	9	Yes
5	Resources available to at least two FIs involved in funding microenterprises by 2017.	2	0	No
6	At least 25 MSMEs for preliminary walk-through audits by 2017.	25	29	Yes
7	At least 150 low to lower-middle-income households receive loans by 2017.	150	91	61%
8	At least 200 students, disaggregated by sex, completed or engaged in their tertiary level training programmes by 2017.	200	843	Yes

Project Cost and Disbursements

3.07 The Project Supervision Report (PSR) for 2021 and disbursement summaries from the Finance Department confirm full disbursement of total funds allocated to the project as at December 31, 2021. As indicated in the project's output section of this report, low demand for the Micro Finance component led to this allocation being transferred to the Special Students loans component. The original allocation of the Mortgage Finance component was USD2.5 mn, but following challenges with uptake, it was decreased to USD1.475 mn, and the remainder (USD1.025 mn) was transferred to the MSME component to support the increased demand from business entities other than micro enterprises. A summary of project costs, financing plan and disbursements is presented in Table 2.

**TABLE 2 : SUMMARY OF PROJECT COSTS, FINANCING PLAN AND DISBURSEMENTS
(USD '000)**

Project Components	Fund Source	Approved Allocation	Revised Allocation	Amount Disbursed
Agricultural and Industrial Credit	OCR	4,000	5,025	5,025
Micro and Small-Scale Enterprise	SFR	1,000	0	0
Mortgage Finance	OCR	2,500	1,475	1,475
RE/EE Pilot Program	SFR	500	500	500
Student Loans	OCR	2,000	2,000	2,000
Student Loans	SFR	500	1,500	1,500
Total		10,500	10,500	10,500

Disbursements

3.08 According to CDB's records in respect of Loan No. 23/SFR-OR-BZE, after the Closing Date of December 31, 2021, the entire amount of the OCR Portion (USD8.5 mn) was withdrawn from the OCR Loan Account; and similarly, the entire amount of the SFR Portion (USD2.0 mn) was withdrawn from the SFR Loan Account. Total funds disbursed therefore amounted to USD10.5 mn. ,

Conditions and Covenants, Procurement and Contractor Performance

Conditions and Covenants

3.09 The Evaluator notes that the PCR includes Covenant compliance in the PCR checklist of key success factors influencing output delivery and states that while DFC was unable to satisfy all CDB's financial loan covenants on an annual basis, every effort was made to achieve a satisfactory level of financial performance, notwithstanding various challenges.

Contractor/Consultant Performance

3.10 As part of the project, CDB provided GOBZ with the Use of Funds of USD85,920 to provide technical assistance support to the implementation of a Pilot EE/RE Programme. The PCR reports that the assessments done by this consultancy covered a range of sectors, including manufacturing, retail and tourism. It states that part of the consultancy assignment involved estimating energy consumption of the main energy users within the operations of participating SMEs, inspection of equipment and including losses, developing a list of technical measures with estimates of investment costs, estimated energy savings, cost savings and payback.

3.11 The PCR adds that, given the initial low participation rate among SMEs and based on feedback received, a proposal was submitted by DFC during 2018 and agreement reached with CDB on revised parameters for the implementation of a new methodology. It indicates that in addition, a revised template for preparation of technical reports related to energy audits was approved, but no further drawdown for this TA component took place.

Monitoring and Evaluation Design, Implementation and Utilisation

3.12 The AR specifies the reports that were to be prepared during project implementation, including quarterly and annual reports. It also identified monitoring and evaluation indicators for each subcomponent. The PSRs and PCR provide adequate information on the indicators during implementation, and the PCR acknowledges that there were some delays in the submission of the periodic reports.

4. EVALUATION OF PERFORMANCE (PCR ASSESSMENT AND VALIDATIONS)

Relevance

4.01 The PCR rates Relevance as Highly Satisfactory. It states that the project was consistent with GOBZ's long-term development strategy to support growth and development. It notes that some of the key priority areas identified for development support were education for life and lifelong learning, economic resilience, facilitation of a vibrant agricultural sector to support rural communities, incorporating technologies into productive enterprises, small enterprise and private sector growth, and construction activity to support improved housing. It further states that the areas targeted for support from this

intervention were consistent with GOBZ national development framework, which covered the period 2010-2030 (Horizon 2030).

4.02 The PCR notes that the project was also in alignment with CDB's country strategies for Belize over the two planning cycles 2010-15 and 2016-20 which recognised support for private sector development, improved quality and access to education and training, support for agriculture and rural development, and improved environmental sustainability to address challenges associated with low growth, low productivity, competitiveness, and climate change.

4.03 In light of the foregoing and the substantial extent to which the objectives and expected impact of the LOC intervention were consistent with the beneficiaries' requirements, country needs, macroeconomic and sector policy framework; as well as CDB's country and sector strategies, and its overarching goal of poverty reduction through sustainable economic growth, the Evaluator concurs with the rating of **Highly Satisfactory**.

Effectiveness

Achievement of Outputs

4.04 The PCR rates the achievement of outputs as Satisfactory. In its justification, the PCR states that the project achieved its objectives of making resources available to borrowers, especially in relation to enterprise lending and financing tertiary-level education, which normally encountered challenges in accessing credit. It makes the point that although the housing finance component did not achieve expected output levels, 50% of the original allocation was used for this purpose, enabling 91 beneficiaries (out of the targeted 150) to receive support. The PCR indicates that the remaining resources were redeployed to assist the business sector with approximately 51% of the total resources disbursed, financing 320 productive sector investments that resulted in multiplier economic benefits for job creation, increased economic output, and foreign exchange earnings/savings.

4.05 In addition, the PCR states that capacity building support through the conduct of energy audits though small, provided the benefit of identifying alternative lower cost energy solutions to reduce the country's carbon footprint, thereby satisfying the objective of increased awareness of RE/EE technology. It further states that the project satisfied the objective of increased supply of skilled graduates, including those from poor and vulnerable households, by making resources available to 843 beneficiaries, 336 of whom were from poor and vulnerable households.

4.06 **Evaluator's Assessment:** As indicated in Table 1 four of the eight expected outputs were fully achieved with two substantially achieved by December 31, 2021. The Evaluator concurs with the **Satisfactory** rating awarded by the PCR.

Achievement of Outcomes

4.07 Three planned outcomes identified in the AR and the targets achieved are presented at Table 3.

TABLE 3: Matrix of Project Outcomes

Number	Outcome Indicator	Target Value	Actual Value	Target Achieved
1	At least 150 homes built to relevant standard and families building code, completed and occupied by low to lower-middle	150	91	No
2	80% of students disaggregated by sex, targeted by this intervention graduate	180	DFC’s current MIS does not track number of Student Loan graduates	NA
3	A reduction of 30% in kilowatt hours consumed in at least 7 MSMEs	30	Data not collected by DFC from loan beneficiaries	NA

4.08 **PCR Assessment:** The PCR does not rate the achievement of outcomes but provides an explanation for the variance between the expected outcome and the actual result.

4.09 With respect to project outcome (i) relating to 150 homes built to the relevant standard, the PCR states that the target was not achieved because CDB’s resources became unattractive to the target market, given that other FIs were offering mortgages with lower interest rates and longer loan tenor. The PCR indicates that a decision was taken to utilise the undrawn balance within the productive sector, where a stronger appetite for credit existed.

4.10 In the case of outcome (ii) regarding graduating students, the PCR states that while intuitively DFC felt the target was achieved, this could not be verified given the absence of an appropriate data collection system and the limitations of the current MIS.

4.11 Regarding outcome (iii) on the reduction in kilowatt hours, the PCR states that while it was possible that the loan beneficiaries might have records of their energy savings, such information was not collected by DFC as part of the client records required to satisfy the Design and Monitoring Framework.

4.12 **Evaluator Assessment:** Only 1 outcome provides information for assessment. This was approximately 60% (91/150) achieved. On this basis, the Evaluator awards a rating of **Marginally Unsatisfactory** for achievement of outcomes.

Rating of Effectiveness

4.13 **PCR Assessment:** The PCR gives a rating of Satisfactory for achievement of Outputs; but gives no rating for Outcomes. Given that the Effectiveness rating is a simple arithmetic average of the scores for project outputs and outcomes, the Evaluator is unable to give a rating for Effectiveness by the PCR.

4.14 **Evaluator’s Assessment:** Based on the Evaluator’s rating of Outputs (Satisfactory with a score of 3 [PAS]) and the rating of Outcomes (Marginally Unsatisfactory with a score of 2 [PAS]), the Effectiveness rating, calculated as an arithmetic average of the two (2.5) is **Marginally Unsatisfactory**.

Efficiency

4.15 The PCR does not rate Efficiency. It states that a review of DFC's financial performance over the period 2015-20, indicated mixed financial results, arising from some conditions that were not enabling to the achievement of economic growth, credit growth, and loan portfolio quality. The PCR adds that as a result, DFC was unable to consistently achieve profitability, recording annual losses except for 2018, which led to capital erosion. It states that DFC was hence unable to achieve the 1% return on average assets benchmark during the implementation period as required under its CDB loan covenant.

4.16 The PCR states that, along with low growth rates on lending, DFC also experienced diminished loan portfolio quality as some sectors, especially agriculture, experienced ongoing production issues, whether related to the effects of climate change or market price-related issues. It further states that DFC implemented various measures to address attendant delinquency challenges, whether in terms of debt forbearance, debt restructuring, or enhanced credit delivery and oversight.

4.17 The PCR indicates that low loan growth and asset quality issues also impacted revenue growth which was variable. From \$11.3 mn in 2016, total income peaked in 2018 at \$12.3 mn but declined for the next two years, with a rebound in 2021 when it reached \$11.2 mn. It notes that while some containment in staff costs was achieved, increased provisioning for bad debts arising from policy amendments in accordance with accounting standard IFRS 9 contributed to ongoing annual losses.

4.18 **Evaluator's Assessment:** Efficiency is a measure of how well the intervention utilises resources in achieving the project outcome. Amongst other things, the Evaluator assessed the utilisation of project resources to finance the targeted AIC, Mortgage Finance, Student Loan Scheme, Micro Enterprise, and the EE/RE sub loans. At appraisal, it was expected that these sub loans valued at USD10.5mn, would have been approved and disbursed by December 2017. However, the PSR of 2018 reported that no sub-loans were approved under the Micro Enterprise component, and the allocated amount of USD1.0 was cancelled and reallocated to other fast-moving components. All resources were fully utilised at project completion date of December 31, 2021, albeit four years late.

4.19 Under the PPES methodology, the principal test⁵ of Cost Efficiency for Financial Intermediaries is the Rate of Return on Average Assets (ROA). Based on the average ROA⁶ over the period of implementation as shown in Table 4, the Evaluator rates Efficiency as **Unsatisfactory**.

⁵ Caribbean Development Bank, Project Performance Evaluation Working Paper: Chapter 5 How to score the six core criteria – page 18, paragraph 2 (B) Financial Intermediaries; and OIE, PPES Matrix Revised Reference: Cost Efficiency – page 7, Financial Intermediaries table.

⁶ PCR for Seventh Consolidated Line of Credit, Belize: Annex 5 – page 57, Financial Performance Indicators 2015 – 2021.

TABLE 4: Annual ROA of DFC 2015 - 2021

Year	ROA	PPES Rating	PAS Equivalent Score
2015	(1.4)	Unsatisfactory	1
2016	(1.3)	Unsatisfactory	1
2017	(5.2)	Unsatisfactory	1
2018	0.36	Marginally Unsatisfactory	2
2019	(2.9)	Unsatisfactory	1
2020	(1.6)	Unsatisfactory	1
2021	(0.53)	Unsatisfactory	1
Arithmetic Average		Unsatisfactory	1.14

Sustainability

4.20 **PCR Assessment:** The PCR rates Sustainability as **Satisfactory**. It states that, based on DFC's ongoing resource requirements, access to this LOC played a pivotal role in allowing DFC to meet gaps in its funding requirements based on projected commitments and disbursements. It points out that the period of implementation was initially projected at four years, but was extended by a further two years due to several unforeseen factors that created implementation challenges not anticipated.

4.21 The PCR states that on recognition profitability was adversely impacted by externalities and some operational issues, DFC took steps to improve its internal operations which included technology improvements, staff training, enhanced operating procedures (adopting a more fit for purpose loan application process and a more robust loan provisioning policy consistent with internationally accepted best practices), adoption of a new strategic plan and strengthening its enterprise risk management framework. Such measures, the PCR adds, were aimed at improving institutional performance, over time, while laying the foundation for institutional sustainability.

4.22 The PCR states that CDB's ongoing engagement with DFC during implementation provided a platform for collaboration to enhance institutional performance and sustainability. It notes that Loan portfolio quality issues remained a primary area of focus, given that since 2015, DFC was unable to achieve the 15% target of non-performing loans/loans outstanding.

4.23 The PCR adds that while achieving a debt service coverage ratio of 1.25 times, given annual losses, DFC was unable to achieve a 1.0% ROA. It indicates that, in addition, continued losses led to capital erosion and during 2021, GOBZ made the largest equity investment of \$31.6 mn in DFC's history, which restored the corporation's capital to strengthen its capital base to a level for accommodating future borrowings and within the 4:1 debt to equity ratio.

4.24 **Evaluator's Assessment:** DFC's performance in satisfactorily meeting its major output targets indicates the importance of the role that it was identified to play in contributing to the expansion and strengthening of the economy of Belize. The demand for DFC's services was demonstrated in the MSME Output (targeting 50 sub-loans) and the SLS Output (targeting 200 students) where the targets were exceeded fivefold and threefold, respectively.

4.25 The test of sustainability for a financial intermediary involves the stability of the demand for its financial services and its operational and financial viability as an institution. This places the focus on the

performance of the institution as opposed to the level of the continuous flow of benefits, including the enduring nature of positive developmental change, which were set in motion by the completed project component⁷. Sustainability is not about the absolute levels of net benefits but focuses on the factors which contribute to the maintenance of operational goals over the long term and the adaptability of operational designs and implementation arrangements to deal with shocks and changing circumstances. In light of the foregoing along with the demonstrated commitment and confidence in DFC by GOBZ the Evaluator concurs with the **Satisfactory** rating of the PCR

Performance of the Borrower and Executing Agency

4.26 The PCR rates Borrower performance as Marginally Unsatisfactory. It states that some delays were experienced during project implementation with respect to satisfying conditions precedent to first disbursement by as much as nine months. The PCR adds that further delays with formulating access criteria for the student loan component to permit access by financially disadvantaged students resulted in this condition being finalised during January 2018. The PCR points out that subsequently, loan disbursement targets beyond 2015 fell behind schedule, being impacted by lower than projected credit uptake, particularly in housing and RE/EE investments, as both sluggish economic growth and challenges with maintaining loan arrears levels within prudential norms contributed to a slowdown in credit uptake. The PCR further states that the achievement of loan covenants with respect to financial targets became a major challenge since these were dependent on achieving an acceptable level of profitability, but for the most part, DFC recorded annual losses.

4.27 The Evaluator concurs with the PCR and rates Borrower Performance as **Marginally Unsatisfactory**.

Performance of the Caribbean Development Bank

4.28 The PCR provides a self-assessment rating of CDB's performance as Satisfactory. It states that during project implementation, CDB's efforts focused on matters detailed in the implementation support plan, including satisfaction of conditions precedent to first disbursement, processing of disbursement requests, ensuring conformity with lending guidelines for the various sub-loans across the various loan components, including issuance of non-objections for MSME sub-loan requests above the \$0.5 mn free limit. The PCR adds that CDB's efforts also ensured that DFC conducted satisfactory environmental and social due diligence on sub-projects as appropriate and that DFC submitted satisfactory eligibility criteria for approval by CDB to facilitate access by students seeking financing from financially disadvantaged households. The PCR further states that CDB, through its Caribbean Technological Consultancy Services network also facilitated the implementation of the RE/EE pilot programme, including procedures for the selection of enterprises to receive walk-through energy audits and reporting requirements for monitoring of the programme. It adds that ongoing monitoring of Loan Covenants was conducted as part of ongoing institutional supervision.

4.29 The Evaluator considers that the Quality at Entry of the project resulting from CDB's upfront effort, as well as the quality of supervision, merits a rating of **Satisfactory** and concurs with the rating of the PCR.

⁷ UNDP Handbook on Monitoring and Evaluating for Results, page 106, paragraph 4, Sustainability, static sustainability.

5. OVERALL ASSESSMENT

5.01 The Evaluator rates overall project performance as **Marginally Unsatisfactory**. This rating is based on an arithmetic average of the total scores from assessments of the core evaluation criteria: Relevance (Highly Satisfactory); Effectiveness (Marginally Unsatisfactory); Efficiency (Unsatisfactory); and Sustainability (Satisfactory).

5.02 Details of the ratings and justification for differences between those of the PCR and Evaluator are presented in Table 5.

TABLE 5: SUMMARY RATINGS OF CORE EVALUATION CRITERIA AND OVERALL ASSESSMENT OF THE PROJECT

Criteria	PCR	OIE Review	Reason if any for Disagreement/Comment
Relevance	Highly Satisfactory (4)	Highly Satisfactory (4)	
Effectiveness	Not Rated	Marginally Unsatisfactory (2)	The Evaluator rates Outputs Satisfactory with a score of 3 and Outcomes Marginally Unsatisfactory with a score of 2. The Effectiveness rating, calculated as an arithmetic average of the two is 2.5.
Efficiency	Not Rated	Unsatisfactory (1)	Evaluator used the ROA ratios during project implementation as the basis for assessment which is the principal test of cost efficiency for FIs.
Sustainability	Satisfactory (3)	Satisfactory (3)	
Composite (Aggregate) Performance Rating	Not Rated	Marginally Unsatisfactory (2.50)	
Borrower & EA Performance	Marginally Unsatisfactory	Marginally Unsatisfactory	
CDB Performance	Satisfactory	Satisfactory	
Quality of PCR	-	Satisfactory	

Lessons

5.03 The PCR identifies the following lessons learned from implementation:

1. Need to more effectively address lending criteria upfront as part of project preparation. These proved difficult to change once embedded in the Agreement.
2. Need to expand the maximum loan size and other detailed lending criteria for the various components on the basis of a recognition of DFC's increased capacity and improved performance. Specifically, we would propose that the maximum loan size be increased from

\$500 thousand to \$1.0 mn. This would reduce the extent of requests for CDB's 'No Objection' and directly enhance credit efficiency and add value.

3. Need to structure the Loan Agreement differently – perhaps to separate operational matters that would regulate the credit so that these can be adjusted as considered appropriate during implementation.
4. Need to increase the term on housing loans beyond 20 years to align with demand. DFC extended this term to 25 years in response to the new realities post-COVID
5. Need to secure faster response time on 'No Objection' requests for loans exceeding the maximum size. With the new definition of SMEs in Belize, the target group of beneficiaries has been effectively expanded with increased opportunities for larger investment in meaningful and impactful development projects.

5.04 The Evaluator considers the lessons cited in the PCR to be especially important and does not have any disagreement with what has been proposed.

6. COMMENTS ON PCR QUALITY

6.01. Apart from the use of a new PCR format which resulted in the absence of some information (example: page 4 of PCR which uses unconverted PPES scores and provides no justifications) and the use of descriptive ratings that fall outside of PAS (example: Annex 1, page 38, Highly Probable, Probable, Low Probability and Improbable), the Evaluator rates the quality of the PCR as Satisfactory.

7. DATA SOURCES FOR VALIDATION

7.01 The primary data sources for this validation exercise were CDB's AR and Loan Agreement; and CDB's PSRs. The Evaluator also held discussions with a member of the PCR team.

8. RECOMMENDATIONS FOR FOLLOW-UP

8.01 No follow-up for OIE is required.

MANAGEMENT RESPONSE



MEMORANDUM

To: Strategic Advisory Team

Subject: Management Response – Office of Independent Evaluation (OIE) Project Completion Validation Report, Seventh Consolidated Line of Credit – Belize

From: Division Chief
Private Sector Division (PSD)
Thru' Vice-President (Operations)

Date: February 4, 2026

The Project Completion Report (PCR) team in PSD agrees with the assessment and findings of the Project Completion Validation Report submitted by OIE. Both the PCR team and OIE agree that there were valuable lessons learnt from the implementation of this Project, which are already incorporated in the design and implementation of the current projects under implementation and are also informing the appraisal of projects under consideration.

Handwritten signature of Stephen Lander in cursive.

Signed:.....

Mr. Stephen Lander
Coordinator, Development Finance, PSD
On behalf of
Ms. Lisa M. Harding
Division Chief, PSD

Handwritten signature of O'Reilly Lewis in cursive.

Signed:.....

Mr. O'Reilly Lewis
Officer-in-Charge
Office of the Vice President (Operations)

JN/SL/LOL:ccw

cc. Office of Independent Evaluation