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CARIBBEAN DEVELOPMENT BANK



EXECUTIVE SUMMARY WITH MANAGEMENT RESPONSE

PROJECT COMPLETION VALIDATION REPORT

EXPANSION OF THE GRANTLEY ADAMS INTERNATIONAL AIRPORT - BARBADOS

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OFFICE OF INDEPENDENT EVALUATION

APRIL 2013

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EXECUTIVE SUMMARY

1. BASIC PROJECT DATA

Project Title	Expansion of the Grantley Adams International Airport (GAIA)
Country	Barbados
Sector	Transport and Communication
Loan No.	14/OR-BAR [PRN #1490] Board Paper No. BD 86/98
Borrower	Government of Barbados (GOBD)
Implementing/Executing Agency (EA)	Grantley Adams International Airport Incorporated (GAIA Inc.)

CARIBBEAN DEVELOPMENT BANK (CDB) LOAN (\$'000)

<u>Disbursements (\$mn)</u>	<u>Ordinary Capital Resources</u>	<u>Special Funds Resources</u>	<u>Total</u>
Loan Amount	22.23	-	22.23
Disbursed	22.23	-	22.23
Cancelled	-	-	-

<u>Project Milestones</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Board Approval	October 15, 1998	October 15, 1998	-
Loan Agreement signed	December 31, 1998	February 01, 1999	1.1
Loan Effectiveness	December 31, 1998	June 04, 1999	5.2

<u>CDB Loan</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
First Disbursement Date	December 31, 1998	August 13, 1999	7.5
Terminal Disbursement Date (TDD)	November 30, 2001	December 31, 2001	1.0
TDD Extensions (number)	-	-	-

<u>Project Cost and Financing (\$mn)</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (\$mn)</u>
CDB Loan	22.23	22.23	-
CDB Grant	-	-	-
European Investment Bank (EIB) Loan	16.20	14.58	(1.62)
Counterpart (GOBD/GAIA)	43.40	81.97	38.56
Total	81.83	118.78	36.44

<u>Terms</u>	<u>Interest Rate</u>	<u>Repayment</u>	<u>Grace Period</u>
CDB Loan	6.4% variable	12 years	5 years
EIB Loan	3.0%	15 years	4 years

<u>Implementation</u>	<u>At Appraisal</u>	<u>Actual</u>	<u>Variance (months)</u>
Start Date	December 31, 1998	June 04, 1999	5.2
Completion Date	December 12, 2001	April 27, 2006	16
Implementation Period (years)	6.00	7.00	10.8

Economic Rate of Return (ERR) (%)

At Appraisal	15.0
PCR	14.3

2. PROJECT SUMMARY

2.01 Over the period 1980-1997, aircraft movements and passenger traffic at GAIA grew at an average annual rate of 2.8 per cent (%) and 1.4%, respectively. The existing airport facilities were originally designed to facilitate up to 2.2 million (mn) enplaning/deplaning passengers annually with a peak hour handling capacity of 1,200 persons. In 1993, due to the size of aircrafts utilised, GAIA had begun to experience peak hour loads of over 1,300 persons. In addition, serious structural deficiencies/distress (extensive cracking and deformation) were identified in the wearing surface runway and main taxiway.

2.02 Recommendations, arising from two separate studies, informed the design of a project aimed at addressing the limitations at GAIA and increasing its capacity to support the implementation of plans to expand the tourism sector. The project was financed by loans from CDB and EIB, and counterpart resources from GOBD. CDB approved a loan of USD22.23 mn on October 15, 1998. The EIB loan was approved on October 26, 1999; and GOBD provided USD43.40 as counterpart financing. The project comprised acquisition of adjacent lands for road extension; improvement of safety and security; airside and landside pavement works; and the upgrade of the airport terminal.

2.03 GOBD, as a condition of the CDB loan, was required to establish an autonomous airport operations company which would also serve as EA for the project. At approval, the Project Implementation Unit (PIU) of the Airport Authority, a Division of the Ministry of Foreign Affairs, Tourism and International Transport was assigned responsibility for project execution. The loan condition also required relocation of PIU to the airport company when it became operational.

2.04 The major risks to achieving the planned outcomes and impact, as identified at appraisal, were an increase in project cost due to high buoyancy in the construction sector; timely supply of counterpart financing; and lower than projected growth in the tourism sector.

PROJECT OBJECTIVES OR EXPECTED OUTCOMES

2.05 The objectives of the project were the upgrade and expansion of airport facilities at GAIA to cater for projected air traffic to the year 2015; and the expansion/enhancement of the airport's duty-free facilities to maximise its revenue-earning potential.

EVALUATION OF PERFORMANCE AND OVERALL ASSESSMENT

Overall Assessment

2.06 The Project Completion Report (PCR) rated the overall performance of the project as *Highly Satisfactory*. The Evaluator rates the overall performance of the project as *Satisfactory*. The Satisfactory rating was informed by the negative influence of the economic downturn on the Barbados' tourism sector and the effectiveness and sustainability of the project.

Relevance

2.07 The PCR rated the Project as *Highly Satisfactory* for its relevance. The formulation of the project was based on a comprehensive feasibility study and robust sector analysis; was consistent with GOBD's tourism sector expansion plans and its civil aviation master plan; and the design incorporated lessons learned from airport and air transport projects financed by CDB and other multilateral development banks (MDBs). In addition, the technical design considerations took into account the need to minimise the disruption of aircraft operations; and GOBD selected the most economic option for both the pavement works and the terminal facilities.

2.08 The project contributed to poverty reduction as it generated significant employment and income generating opportunities during construction; the relocation of households to safer locations outside of the flight path was done on terms advantageous to householders; and the expansion of GAIA was expected to stimulate employment and income earning opportunities in areas that traditionally feature a high level of participation by women. The Evaluator also rates the project's relevance as *Highly Satisfactory*.

Effectiveness

2.09 The PCR rated the project's effectiveness as *Highly Satisfactory*. The planned outputs of the project were reconstructed runway, taxiways and other paved areas; a renovated and enlarged terminal building; and an expanded duty-free concession area. The scope of the planned physical outputs was increased and completion was delayed, but planned outputs were achieved. In addition, the pavements were performing satisfactorily since construction; the terminal building was serving passenger numbers similar to projections at appraisal; and revenue from sales and concessions was consistent with projections. The Evaluator rates the effectiveness as *Satisfactory* based on the following:

- (a) Airport facilities at GAIA have been upgraded to acceptable international standards to cater to air traffic projections to the year 2015.
- (b) Airport duty-free facilities have been enhanced to maximise revenue from passengers using the airport.
- (c) Over the period 2003-2012, median passenger traffic was approximately 10% higher than appraisal projections for that period, but approximately 87% of the projection for 2012. Median aircraft movement over the same period was 57% of appraisal projections and 52% of projections for 2012, a reflection of the continued negative impact of the global economic recession on international travel.
- (d) Median revenue per passenger from concessions and rentals for 2003-2012 was 7.32 Barbados dollars (BBD) which exceeded projections of BBD4.00 by 2003, by approximately 160%.
- (e) Appraisal projections for aircraft movement and passenger throughput are unlikely to be attained by 2015, given the global economic downturn.

Efficiency

2.10 The PCR rated efficiency as *Satisfactory*. The PCR estimates that the final cost of the project was 45.1% higher than the estimate at appraisal. This was attributable to increased project management costs due to construction delays; increase in the scope of the civil works; and escalation in construction labour and materials cost. At appraisal, the project was expected to achieve an ERR of 15%. Recalculation at project completion, taking into account the adverse effect of negative externalities, yielded an ERR of 14.3%. The Evaluator, therefore, also rates efficiency as *Satisfactory*.

Sustainability

- 2.11 The PCR rated project sustainability as *Highly Satisfactory*. The justification for this rating was as follows:
- (a) over the period 2008-2011, GAIA Inc., though facing debt management and liquidity challenges, had achieved profitability and would be able to meet the facility's cost of maintenance;
 - (b) an effective maintenance programme was in place; and general arrangements for air quality monitoring, sewage and solid waste management were acceptable;
 - (c) to reduce operating costs, GAIA Inc. was exploring the use of alternative energy;
 - (d) the GAIA 2011-2030 Master Plan would include a Land Use Plan to control development within the vicinity of GAIA and establish the required Airport Clear Zone; and
 - (e) implementation of the wider Master Plan would further strengthen GAIA.
- 2.12 The Evaluator rates the sustainability of the project as *Satisfactory* based on the following:
- (a) the extensive delay in completing the establishment of the Airport Clear Zone;
 - (b) the need for GAIA Inc. to strengthen its business development and revenue generation capacity;
 - (c) the likely impact of the current economic downturn on the tourism sector; and
 - (d) during the formulation of the Master Plan the assessment identified the need for, and GAIA is to take, actions to develop an airport-specific sustainability policy, strategy or management plan.

Borrower and Executing Agency Performance

2.13 The PCR rated the performance of the Borrower and EA as *Satisfactory*. The PCR indicates that GOBD and GAIA Inc. provided all the necessary resources required to complete the project; and complied with critical loan conditions although significant delays were incurred. Also, that there was adequate interagency coordination; PIU was effective; and the decisions taken to increase the scope of works subsequently enabled GAIA to attain International Civil Aviation Organisation Standards for Aerodrome Certification. The Evaluator concurs with the *Satisfactory* rating, given the Borrower's and EA's level of commitment to the implementation of the project and maintenance of the assets financed under the project.

CDB Performance

2.14 The PCR rated the performance of the Bank as *Satisfactory*. The design of the project was informed by two studies; appraisal of the project was completed within three months and the Borrower had assessed CDB's performance as satisfactory. The Evaluator also rates CDB's performance as *Satisfactory* as Bank staff had conducted over 10 supervision missions over the period 2000-05 and a special performance review mission was conducted on October 8, 2008. In addition to these field missions, supervision also included frequent communication between the Bank, GOBD and GAIA Inc. The project comprised, and the planned objectives were based on, components financed by CDB and EIB.

The Bank's supervision efforts were however limited to components of the project financed by CDB. The Evaluator, therefore, rates CDB's performance as *Satisfactory*.

TABLE 1: SUMMARY RATINGS OF CORE EVALUATION CRITERIA AND OVERALL ASSESSMENT OF PROJECT

Criteria	PCR		OIE Review		Reason, if any, for Disagreement/Comments
	Score	Rating	Score	Rating	
Relevance	4	Highly Satisfactory	4	Highly Satisfactory	-
Effectiveness	4	Highly Satisfactory	3	Satisfactory	Objectives are likely to be substantially achieved with some shortcomings due to the economic downturn.
Efficiency	3	Satisfactory	3	Satisfactory	-
Sustainability	4	Highly Satisfactory	3	Satisfactory	Risk to GAIA's revenue caused by economic downturn. Efforts by GOBD to mitigate risks to the tourism sector and its support to GAIA Inc. should contribute to the resilience of GAIA Inc.
Overall Assessment	3.75	Highly Satisfactory	3.25	Satisfactory	Negative influence of externalities on the project's effectiveness and sustainability.
Borrower & EA Performance		Satisfactory		Satisfactory	-
CDB Performance		Satisfactory		Satisfactory	-

Institutional Development Impact

2.15 The PCR rated the institutional development impact of the project as *Highly Satisfactory*. A condition of CDB financing was the establishment of an autonomous airport company. The process was protracted, GAIA Inc. was established in October 1998 and became fully operational in January 2006. The Evaluator also rates the project's institutional impact as *Highly Satisfactory* since the restructuring, although protracted, has provided a more enabling environment to improve financial management and self-sufficiency.

LESSONS

2.16 The PCR identified the lessons learned from implementation of the project as follows:

- (i) Executing agencies must ensure that method statements are comprehensive and contain realistic plans for completing works in the required time; and contractors have allocated adequate resources for project management, especially for joint venture arrangements.
- (ii) Effective stakeholder engagement, during project preparation, can reduce the need for significant infrastructure design changes, after project approval.
- (iii) Project design should include adequate arrangements to ensure the timely implementation of institutional reforms that are critical to achieving project outcomes.
- (iv) Relocation of households must be done within the agreed time frame and lands for relocation must be identified early in the process. Delays in relocating households may lead to lands remaining occupied for an inordinate length of time.

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

- (i) Delayed land acquisition and resettlement of households which are required for airport expansion/redevelopment projects become operational hazards and could potentially compromise vital safety areas of the airport, in particular the requisite clear zones.
- (ii) Monitoring, evaluation and reporting systems are essential for assessing operational performance and generating information which will inform the design of future projects.
- (iii) Strong commitment from the Borrower and EA is important for effective project implementation and achievement of project objectives.
- (iv) Actions that pose a high risk to timely implementation and achievement of planned results should be initiated and/or completed even prior to project approval. These include land acquisition, re-settlement/relocation of residents from a project area, formulation of policies and institutional initiatives, design of appropriate organisational structure, formulation/enactment of relevant legislation and regulations, execution of leases.
- (v) Complex operations require close interaction between the Bank and a strong project team on the Borrower's side.
- (vi) Financial terms and conditions within the Loan Agreement, for revenue-generating entities, need to take into account the norms and practices of the commercial environment within which that entity operates and the externalities that influence its operations.

PCR QUALITY

2.18 The Evaluator rates the PCR quality as *Marginally Unsatisfactory* based on the inadequacy of information provided on:

- (i) the operational and financial performance of GAIA Inc. and the factors which are currently and/or likely to influence revenue generation and its debt servicing capacity;
- (ii) the status and proposed time frame for GOBD/GAIA's resolution of critical issues such as the establishment of the Airport Clear Zone;
- (iii) the Borrower's compliance with CDB and EIB loan covenants;
- (iv) the total cost of implementation including, for example, finance charges on the CDB loan paid by GOBD/GAIA Inc. during project implementation;
- (v) factors critical to the performance of the project, which were not analysed and discussed in the PCR. These factors include the legal/regulatory framework, land acquisition/resettlement, covenant compliance, and the monitoring and evaluation system; and
- (vi) the rationale for the omission of an exit workshop as a part of the close-off process.

RECOMMENDATIONS FOR FOLLOW-UP

2.19 No follow-up is required. The Evaluator does not consider that a Project Performance Audit Report would provide significantly more information or identify additional lessons to be learned than those identified in the PCR or included from other MDBs. The Evaluator, however, recommends that the Bank should follow up on the status of outstanding project issues such as:

- (a) relocation of residents for the establishment of the Airport Clear Zone;
- (b) establishment of the Airport Clear Zone to meet International Air Transport Authority requirements;
- (c) realignment of the Thyme Bottom/Parish Land Road;
- (d) implementation of the Master Plan 2011-2030 for GAIA Inc.; and
- (e) ongoing compliance with recommended and/or mandatory operating guidelines.

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1.01 While there is general agreement between the ratings of project performance made in the PCR and the Validation Report (VR), there is divergence on matters that relate directly to the substantial period of time which elapsed between the completion of project implementation and PCR preparation; the lag between the implementation of the components financed by CDB and EIB; and the expected scope of a PCR. This divergence is reflected in the “marginally unsatisfactory” rating assigned to PCR in VR.

1.02 Paragraph 7.01(a) of VR questioned the age of the operational performance statistics used in the PCR. The data used was the latest available when the PCR was drafted, i.e. 2009 operational data provided by GAIA Inc. in December 2010, and 2010 financial data provided in January 2011. In July 2011, the PCR was submitted to GOBD for comment. Data was not updated during the period in which the PCR was prepared and circulated, though this could be considered in future.

1.03 Paragraph 7.01 (b) questioned the adequacy of information provided about the runway clear zone. While the creation of a clear zone at the western end of the runway at the GAIA will enhance safety, it was not a component of the project and resources were not included in the project for its creation. The project met its objectives despite the delay in the creation of the clear zone. The PCR provided the status of the relocation of residents necessary to facilitate the creation of the clear zone and recommended follow-up discussions on the related relocation of residents.

1.04 The aspects of the project financed by CDB and EIB were completed in 2001 and 2006, respectively. The main consultants and contractors immediately demobilised from Barbados after the completion of their respective activities. When the PCR was prepared, GOBD’s project manager had left the service of GAIA and persons who had been involved in implementation reported difficulty in recalling information about implementation. This demonstrates the need to schedule exit workshops as close as possible to the end of the implementation period. However, the inclusion of such workshops in monitoring and evaluation procedures was not the practice of the Bank when the project was completed. In the absence of most of the key stakeholders, the usefulness of an exit workshop when the PCR was being prepared was doubtful. Consequently, while the rationale for omission of an exit workshop was not stated in the PCR, its omission was justifiable.

1.05 The most significant item of non-compliance with loan covenants which was not discussed in the PCR was the non-transferral of CDB loan from GOBD to the “books” of GAIA Inc. As correctly noted in VR, evidence of compliance in respect of some of the reporting requirements was absent from the project files, particularly quarterly Reports on Investment Cost of the Project during implementation, and operational and financial projections during the operational phase.

1.06 PCR and VR are consistent in respect of the lessons learned from the project and the recommendations for follow-up action by the Bank. This VR also provides useful guidance on the extent of detail which should be provided in PCRs to explain the rationale for the inclusion and omission of activities and information in the preparation of PCRs. VR has also highlighted specific improvements which would benefit appraisal of similar projects in future, notably the need to customise conditions relating to the recommended extent of “accounts receivables” to the character of the business, and the need for closer collaboration between co-financing entities and the monitoring of related conditions.