



GOVERNMENT OF THE
VIRGIN ISLANDS
Premier's Office



VIRGIN ISLANDS
**RECOVERY AND
DEVELOPMENT AGENCY**

BREGADO FLAX EDUCATIONAL CENTRE



EVALUATING VALUE FOR MONEY

PROJECT NUMBER: EDU.02.25.086

Bregado Flax Educational Centre (BFEC)

Value for Money (VfM) Assessment Report

1) INTRODUCTION

One of the core roles of the Recovery and Development Agency (RDA) is ensuring Value for Money (VfM) in the delivery of programmes and projects aimed toward recovery and development of the Virgin Islands. Section 5(2)(c) and (d) of the Virgin Islands Recovery and Development Regulations outline the value for money mandate of the RDA, specifying that:

The Agency shall be responsible for implementing the Government’s Recovery and Development Plan in partnership with the Ministries and in so doing shall:

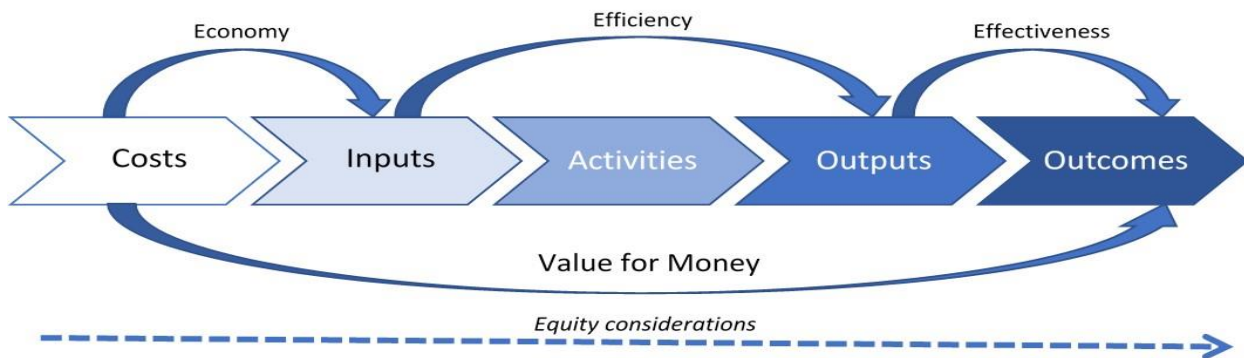
- (c) deliver the intended benefits; [and]
- (d) ensure that each project represents value for money.

To this end, the RDA has developed a Value for Money Framework and Methodology, which uses specific criteria to assess projects’ Value for Money and assigns an overall VfM score for each project.

The VfM score is made up of eight indicators (listed in Table 1) within the four outlined areas of Value for Money, namely Economy, Efficiency, Effectiveness and Equity.

Table 1: Value for Money Areas within the 4Es

VALUE FOR MONEY AREA	
Economy	Economy
Efficiency	Output Cost, Output Time, Schedule
Effectiveness	Output Effectiveness, Outcome Effectiveness, Quality
Equity	Equity



The Bregado Flax Educational Centre project began in May 2020, aimed at rehabilitating four (4) buildings on the Virgin Gorda campus which had been severely damaged by 2017's hurricanes. This project was part of the package of projects funded by the Caribbean Development Bank's (CDB) Rehabilitation and Reconstruction Loan to the Government of the Virgin Islands which was handed over to the RDA for implementation in March 2020. The scope of this project involved construction of a new roof on one of the classroom buildings, and refurbishment of the administrative building. The rehabilitation of these buildings would provide a clean, safe environment for teaching and learning at the school. Over a period of 390 days, using \$1,983,898 this project was able to deliver on intended outputs, and provide better teaching and learning conditions at the Bregado Flax Educational Centre.

The following sections of this report assess the overall Value for Money of the Bregado Flax Educational Centre project, using the methodology outlined in the RDA's VfM Framework Guidelines for Economy, Efficiency, Effectiveness and Equity.

2) Overview of Overall VfM Score (72.5 out of max 100 points)

The main challenge to a more successful overall VfM score for this project was the failure of the project to be within its original budget and schedule. While the project largely met benchmarked costs and time, it was over its original budget and schedule, which negatively affected its Economy and Schedule (within Efficiency) scores. The project also did not adequately consider safeguarding measures for children, based on survey responses following project completion, which affected its Equity score. At the same time, the project was able to achieve its targeted outputs and contribute to a broader outcome largely within cost and time benchmarks, resulting in full scores for Cost Efficiency, Time Efficiency, Output Effectiveness, and Outcome Effectiveness.

Bregado Flax Educational Centre – VfM Scoring			
Economy	Economy	0/10	0/10
Efficiency	Cost Efficiency	20/20	30/40
	Time Efficiency	10/10	
	Schedule	0/10	
Effectiveness	Output Effectiveness	20/20	40/45
	Outcome Effectiveness	15/15	
	Quality	5/10	
Equity	Equity Goals	2.5/5	2.5/5
Overall VfM Score			72.5/100
Total Adjusted VfM Score			72.5/100

The overall VfM score was 72.5 out of 100. This indicates some scope for improving overall Value for Money of this project, in relation to being within budgeted costs and scheduled time. The safeguarding measure was for the first time considered in terms of Equity for this project, given its location within a school campus that was at times in session, with children on campus. Better consideration for child safeguarding in these circumstances should be an integral part of project planning and implementation going forward.

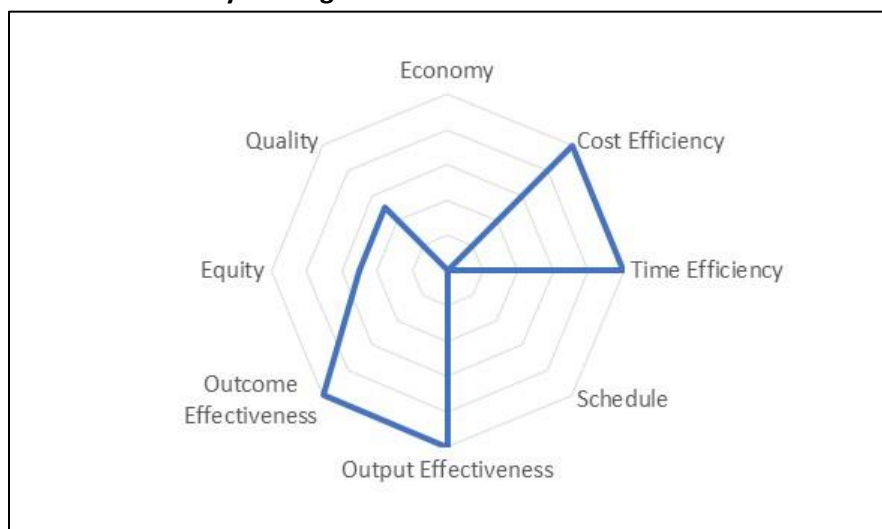
Following discussions on the importance of improving timing of RDA-implemented projects, given that efficiency is a core argument for the continued existence of the RDA in facilitating public sector recovery and development, a decision has been made to present an enhanced scoring framework for Value for Money in the RDA context, which further highlights timing. As such, the Table below presents a more time-focused assessment of VfM for the CDB-funded Bregado Flax Educational Centre project.

Bregado Flax Educational Centre – Time Focused VfM Scoring			
Economy	Economy	0/10	0/10
Efficiency	Cost Efficiency	20/20	35/50
	Time Efficiency	15/15	
	Schedule	0/15	
Effectiveness	Output Effectiveness	20/20	30/35
	Outcome Effectiveness	5/5	
	Quality	5/10	
Equity	Equity Goals	2.5/5	2.5/5
Overall Time Focused VfM Score			67.5/100
Total Adjusted Time Focused VfM Score			67.5/100

A focus on the time element results in an Overall Adjusted VfM Score of 67.5 out of 100 for the BFEC project. Going forward, the time focused VfM Score will be provided alongside the original VfM Scoring framework in all future VfM Reports, to further put into focus the importance of efficiency gains in RDA-implemented projects.

As part of an effort to continuously improve, the RDA has implemented cost containment strategies through more detailed planning efforts and improved time management to help propel efficiency gains and more adequately capture user requirements.

Figure 1: Overall Value for Money Scoring – Radar Chart



The overall Value for Money Scoring Chart (Figure 1) demonstrates the excellent scores received for Cost Efficiency, Time Efficiency, Output Effectiveness and Outcome Effectiveness; while Quality and Equity received middling scores; and assessment of Economy and Schedule resulted in no points being assigned for these aspects of Value for Money.

3) ECONOMY (0 out of max 10 points)

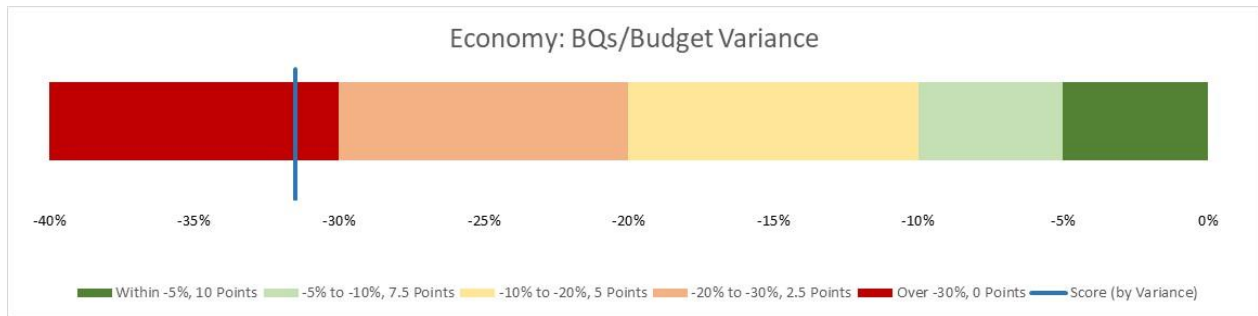
The economy of the Bregado Flax Educational Centre project has been assessed based on original budget for the project, which was \$1,500,000.

The total spend for this project as at end of April 2022 is \$1,983,897.97 which is 32.3% above the original budget. As such, this project was assigned no points in assessment of its Economy (Table 2).

It should be noted that the Economy score, which compares the final project cost to the planned original budget, was negatively affected in this instance primarily because of deficiencies in the design inherited for the project. Where the design was inadequate and failed to address existing issues, these then had to be factored in, increasing both costs and time required for project completion to an acceptable standard.

Table 2: Assessment of Economy

ECONOMY ASSESSMENT: 0/10 POINTS	
Original Budget	\$1,500,000.00
Actual Spend	\$1,987,897.97
Variance (\$)	(\$483,897.97)
Variance (%)	(32.3%)
ECONOMY SCORE	0



4) ON BENCHMARKS USED

In calculating VfM Scores for both Cost and Time Efficiency, consideration has been given to performance against relevant benchmarks established for the production of specific outputs. Giving a background of the benchmarks used, and why, provides the necessary context for comparisons made.

In the case of the Bregado Flax Educational Centre project, funded by the CDB RRL, the following benchmarks for cost and time have been used to assess cost and time efficiency:

Type	Benchmark	Sources	Considerations
Cost	\$215 per square foot rehabilitated	BCQS Market Trend Report, 2021	Cost for 1-3 storey shell
Time	30 square feet rehabilitated per day	https://aquilacommercial.com/learnin-g-center/how-long-build-out-renovate-office-space/	Based on benchmark for construction time in the US.

Cost Benchmark

The cost benchmark has been determined based on the average cost of constructing a 1-3 storey shell building, indicated in the 2021 BCQS Market Trend Report. This average cost is \$215 per square foot.

Time Benchmark

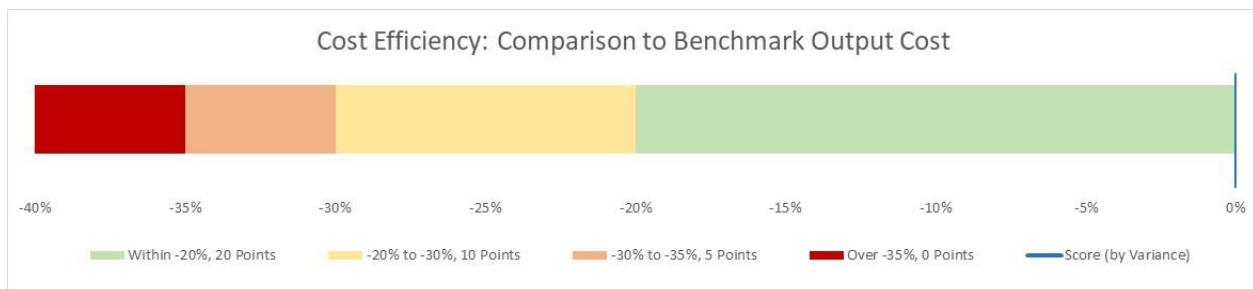
The time benchmark used was determined based on the average construction time in the US indicated by Aquila Commercial Construction, of 30 square feet renovated per day.

5) EFFICIENCY (30 out of max 40 points)

The efficiency of an intervention considers Output Cost (Cost Efficiency), Output Time (Time Efficiency) and Schedule. In terms of output cost, the project involved rehabilitation of 10,764 square feet of buildings on the BFEC campus in Virgin Gorda using \$1,983,897.97. This translates to an average of \$184.31 per square foot rehabilitated to improve teaching and learning conditions at the school. Based on research conducted, a benchmark average cost for construction of a 1-3 storey building of \$215 per square foot has been used.¹ In this way, the cost of each output for this project was well within the benchmark cost, therefore a full 20 points have been assigned for cost efficiency (Table 3).

Table 3: Cost Efficiency Assessment

COST EFFICIENCY ASSESSMENT: 20/20 POINTS	
Output Unit Cost	\$184.31 per square foot
Benchmark Output Unit Cost	\$215.00 per square foot
Variance (\$)	\$30.69
Variance (%)	14.3%
COST EFFICIENCY SCORE	20



Having started on 1 May 2020, the project was initially slated to be completed by the 20 November 2020, that is within 203 days. The project was actually completed on 26 May 2021, with a total recorded number of project days therefore at 390. Given the impact of the monthlong lockdown in March and April of 2020, a total of 28 days were deducted from the total project days, resulting in an adjusted number of project days of 362 days.

¹ BCQS Market Trend Report 2020

In terms of assessment of time efficiency, the calculated output unit time was an average of 29.7 square feet rehabilitated per day, whereas the benchmark output unit time was 30 square feet rehabilitated per day. This resulted in full points being assigned for Time Efficiency, as the actual outputs - square feet rehabilitated - produced within the timeframe (an average of 29.7 square feet rehabilitated per day), was in line with the benchmark output unit time of 30 square feet rehabilitated per day (Table 4).

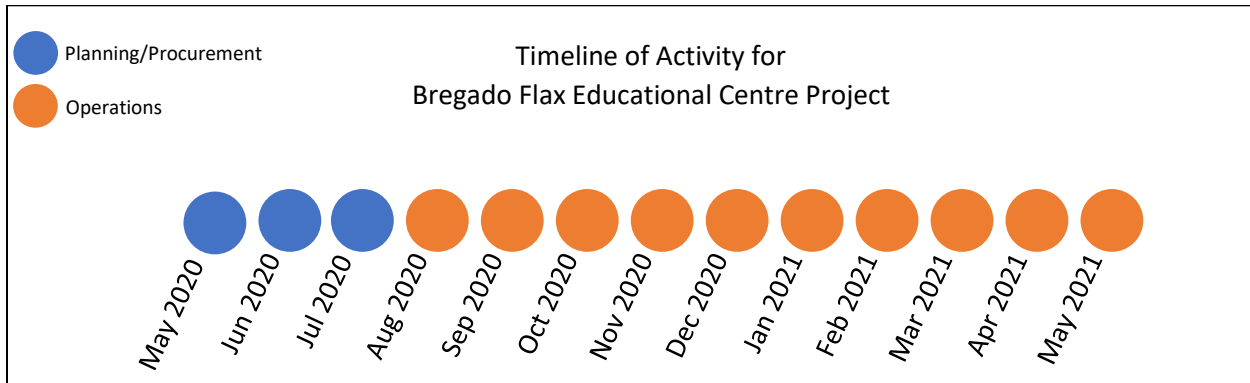
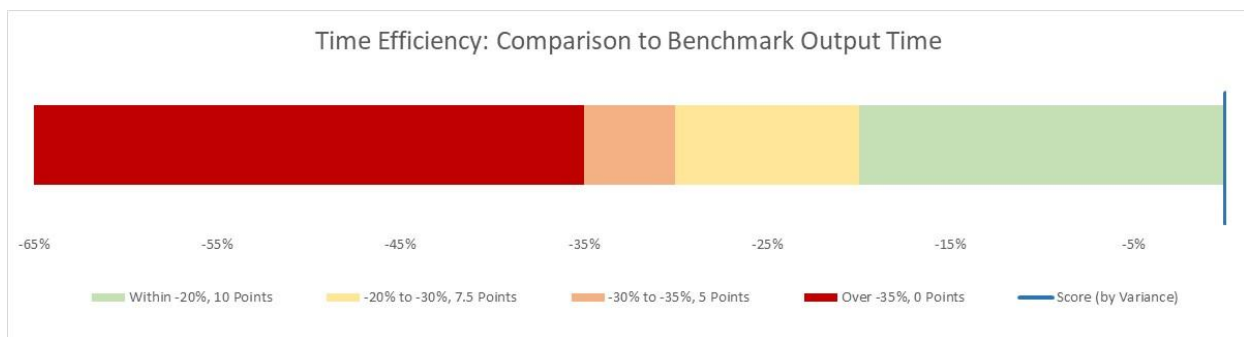


Table 4: Time Efficiency Assessment

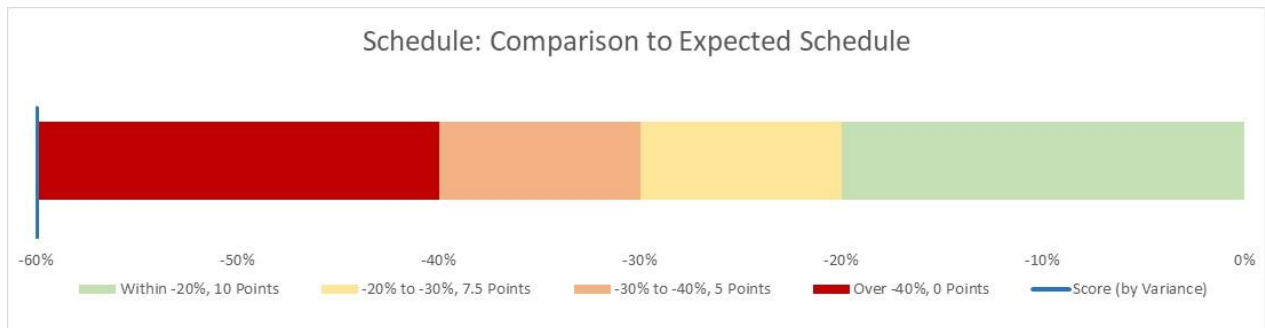
TIME EFFICIENCY ASSESSMENT: 10/10 POINTS	
Output Unit Time	Avg. 29.73 square feet deep cleaned per day
Benchmark Output Unit Time	Avg. 30 square feet deep cleaned per day
Variance (days)	(0.27)
Variance (%)	(0.9%)
TIME EFFICIENCY SCORE	10



In terms of schedule performance, given that there were 203 planned project days compared to a total number of actual project days at 390, and adjusted project days at 362, the variance of 187, and adjusted variance of 159 days meant that the project was 92.1% or adjusted 78.3% over its scheduled timeline, with 0 points thus awarded for the Schedule assessment (Table 5).

Table 5: Schedule Assessment

SCHEDULE ASSESSMENT: 0/10 POINTS	
Planned Project Days	203 days
Actual Project Days	390 days
Adjusted Actual Project Days	362 days
Variance (days)	(187 days)
Adjusted Variance (days)	(159 days)
Variance (%)	(92.1%)
Adjusted Variance (%)	(78.3%)
SCHEDULE SCORE	0

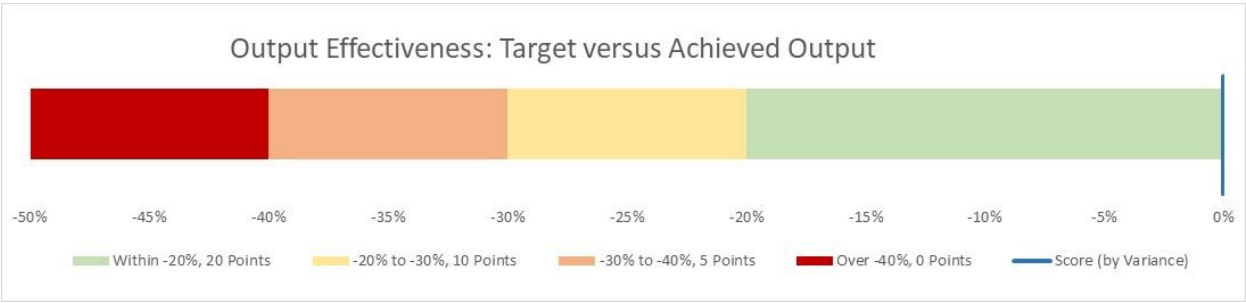


6) EFFECTIVENESS (45 out of max 45 points)

Output effectiveness is a measure which compares targeted output indicators to achieved output indicators. In the case of the Bregado Flax Educational Centre project, the total square footage targeted for rehabilitation and reconstruction was 10,602 square feet. The project was able to rehabilitate and reconstruct 10,764 square feet of teaching, learning and administrative space for the school campus, creating an additional fourteen (14) classrooms, and several offices for the staff, teachers and students. Hence, a full 20 points has been assigned for Output Effectiveness (Table 6).

Table 6: Target versus Achieved Output

OUTPUT EFFECTIVENESS ASSESSMENT: 20/20	
Targeted Outputs Rehabilitated	10,602 square feet
Achieved Outputs Rehabilitated	10,764 square feet
Variance	162
Variance (%)	1.5%
OUTPUT EFFECTIVENESS SCORE	20

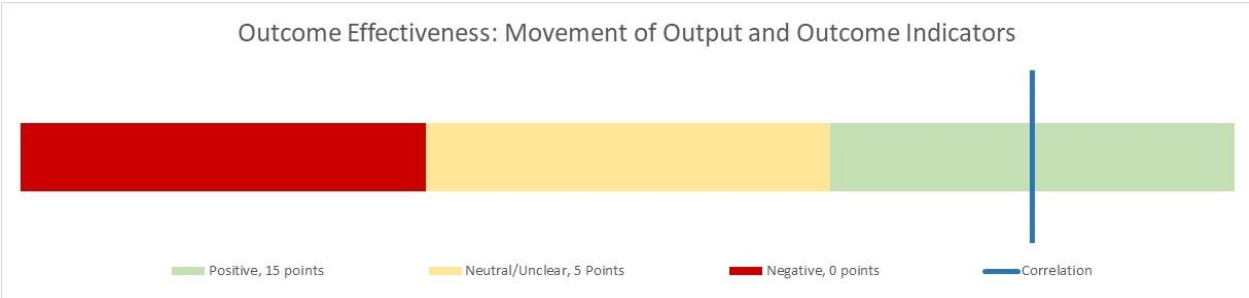


In terms of outcome effectiveness, the change relationship between the observed output and outcome has been used as a simple measure of outcome effectiveness. Using this methodology, the directional change in output is compared to the directional change in outcome. In the case of the Bregado Flax Educational Centre project, both the output: square feet of buildings rehabilitated; as well as the outcome: number of students in clean/acceptable space for teaching and learning; moved positively due to the execution of this project, i.e. as more square feet of the buildings were rehabilitated, more students were in a clean/acceptable space for teaching and learning in Virgin Gorda. Specifically, 221 students enrolled in BFEC secondary were provided an acceptable space for teaching and learning in Virgin Gorda, with fourteen (14) additional classrooms available due to execution of this project.

The change relationship between output and outcome has thus been deemed a positive correlation, and the maximum score of 15 points has been assigned (Table 7).

Table 7: Relationship between Outputs and Outcomes

OUTCOME EFFECTIVENESS ASSESSMENT: 15/15	
Output Change: square feet of building deep cleaned	+10,764
Outcome Change: students in improved teaching/ learning conditions	+221
Assessment of Change Relationship	Positive correlation
OUTCOME EFFECTIVENESS SCORE	15



7) Quality

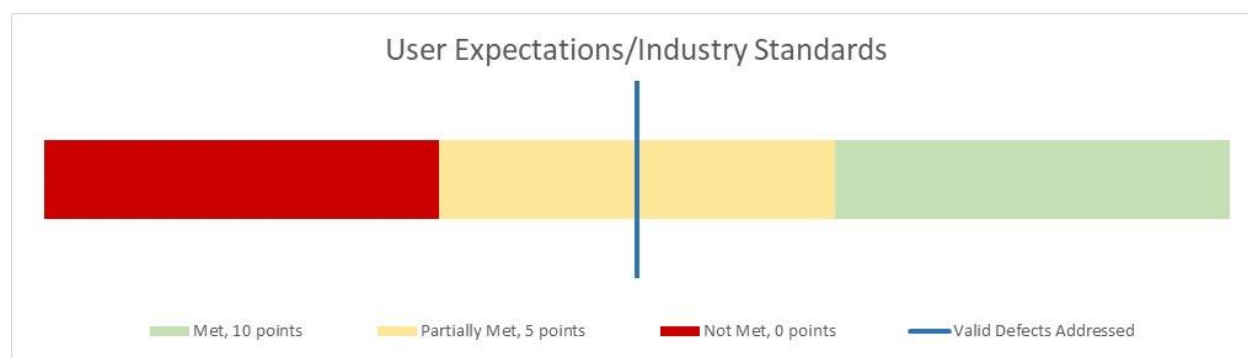
Assessment of Quality for the purpose of VfM Assessments may be based on User expectations, Valid defects reported, and/or the extent to which Industry standards have been met. In the case of the Bregado Flax Educational Centre, given that this project is firmly within the social (Cohesive and Empowered Society) sector, and more specifically the Education subsector, dealing with children, it seemed most appropriate to have direct feedback from beneficiaries of the project, in this case, teachers and staff of BFEC. For this purpose, a survey questionnaire was designed and disseminated to BFEC teachers and staff,

with questions spanning both quality as well as child safeguarding elements in place. As at 10th May 2022, the respondent sample of teachers and staff through the survey response rate was 10%.

The responses to the survey questionnaire are summarised below.

Table 8: Assessment of Quality

QUALITY ASSESSMENT: 5/10	
Avg. quality assessment before project implementation	2.5/5
Avg. quality assessment after project implementation	3.5/5
User Expectations	Partially Met
QUALITY SCORE	5



Relevant quotations received from BFEC teachers and staff about the quality of the end-product of project implementation included:

“The building has been given a face lift. A more durable roofing is in place with adequate lighting.”

“The school has come a long way with better office facilities for principals, ramps, exits and better bathrooms for the students. However, the teachers are dispersed all over on campus since the staffroom can only accommodate 11 teachers.”

“Currently, we have a lovely building but it does not adequately accommodate the school body. Before Irma, in addition to the school building, there were two trailers being used as classrooms; Irma destroyed the trailers. The trailers (classrooms) were not replaced.”

Based on the quantitative and qualitative assessments received from BFEC teachers and staff, this project’s quality has been assessed as having Partially Met user expectations, and a score of 5 out of 10 for quality has thus been assigned (see Table 8).

8) Equity

The Equity assessment has been broadened to include consideration of Safeguarding of children, given the sensitivity of this particular project which took place on a school campus, including with children present on the campus. A checklist has been adopted and adapted on Child Protection during Building Works, and this has been used post project-implementation to determine whether and to what extent safeguards were in place to protect children and other vulnerable persons during construction of this project.

Based on the scored checklist, this project achieved three points out of a total of five points for child safeguarding. Specifically, the project was carried out during normal hours when the school was sometimes occupied, site separation did not reach 100%, since management procedures were used for access to the work area and welfare facilities, and children were generally, but not always supervised.

Going forward, it will be more relevant and effective for this checklist to be utilised before and during construction to ensure child protection. Child protection concerns are particularly relevant for projects taking place on schools and recreational facilities, with children near project sites where works are executed.

Table 9: Equity Assessment

EQUITY: 2.5/5	
Safeguarding requirements in place for child protection	Partially
Assessment of Equity	Partial
EQUITY SCORE	2.5

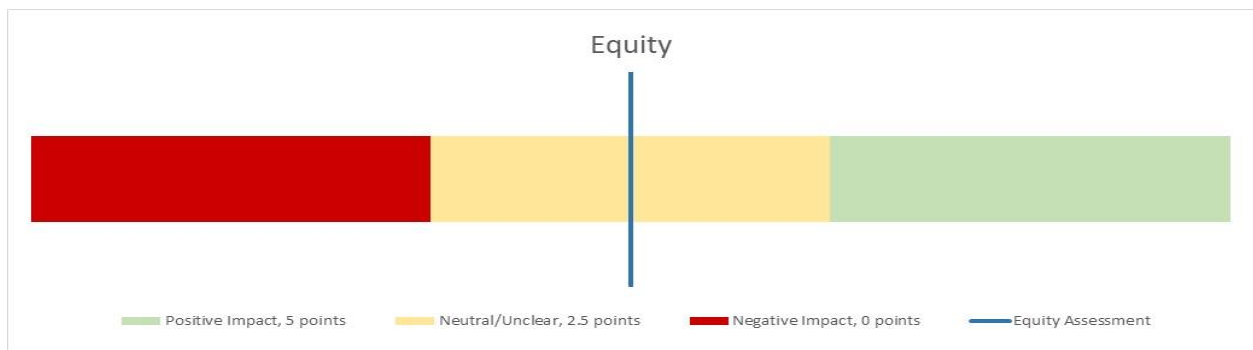


Figure 2: VfM Score Comparison with Other Completed Projects



Lessons identified coming out of the Bregado Flax Educational Centre project include:

- 1) Ensuring any inherited design work is comprehensive and of adequate quality prior to acceptance. Where not possible, considerations should be made for the costs of bringing inherited design work to required standard in estimating cost of overall project;
- 2) Ensuring upfront planning is as comprehensive as possible to limit required amendments and change orders (this project had a total of 38 change orders, affecting performance against both planned budget and schedule); and
- 3) Collaboratively working with contractors and the lead Ministry to foresee issues and thus minimise delays.

7) Conclusions

This report has been prepared using the RDA's Value for Money Framework in assigning a VfM Score to the Bregado Flax Educational Centre project based on Economy, Efficiency, Effectiveness and Equity. The importance of keeping accurate, up-to-date, readily accessible information on project budgets, schedules, spending and results has once again been underlined in the process of conducting this VfM assessment. The Monitoring and Evaluation Team continues to play an important role in reviewing the quality of this information, and collating data for calculation of projects' VfM scores.

Achieving 72.5 points out of 100, the Bregado Flax Educational Centre project's VfM could have been enhanced through improved cost containment and time management, in line with the budget and schedule set for the project as well as better quality and child safeguards. That said, the project was able to achieve its targeted outputs within cost and time benchmarks, contribute to a broader outcome, and demonstrate some quality and equity, achieving middling scores for Quality and Equity, and perfect scores in Cost and Time Efficiency, as well as Output and Outcome Effectiveness.

8) The Way Forward

Based on assessment of the Bregado Flax Educational Centre project's VfM, there were three main issues that prevented a more successful achievement of Value for Money by the RDA, namely:

- 1) The designs used for this project had been previously prepared and were thus inherited by the RDA for implementation. During implementation, it became clear that there were significant deficiencies in the design, which then required these to be investigated and updated, during which time work could not be continued along the anticipated schedule. These design deficiencies resulted in increased costs and time above initial expectations. It should be noted though, that the outputs in terms of square footage produced were within benchmarks for both costs and time, even though these were above both the original budget and schedule set for the project.
- 2) The quality assessment of this project revealed that the end-users, in this case namely the teachers of the school, did not feel that the rehabilitation of the school adequately provided for their needs in terms of both staff room and classroom space. In this case, the RDA inherited already prepared designs based on previously expressed user requirements. To reduce risk to the quality and suitability of end products produced by the RDA, greater efforts should be made to ensure that user requirements are adequately captured during the initial stages of project planning and that consultations are broad enough to capture requirements of end-users.
- 3) This project's VfM assessment considered child safeguarding for the first time, within the Equity element of VfM, and user feedback surveys were deployed to determine whether or not adequate child safeguarding practices were in place on-site, given that the project site is a school campus. Specifically, based on user feedback, full site separation was not achieved and children were generally, but not always supervised.

Action Plan to Remedy

	Issue	Solution	Timeframe for Implementation
1	Inherited designs inadequate	Ensure that inherited designs are adequately reviewed and updated prior to proceeding to procurement, incorporating any required adjustments to designs, budgets and schedules	Ongoing: During project planning
2	End users' requirements and expectations not adequately met	Ensure user requirements are adequately captured during project planning; Double-check this when designs are inherited	Ongoing: During project planning
3	Child safeguarding not adequately considered	Where projects take place on sites where children are present (eg. schools and recreation facilities), child safeguarding checkbox should be considered and adhered to	Ongoing: During project planning and verified during implementation