Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No. 5364

PROJECT COMPLETION REPORT

GUYANA

SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

December 20, 1984

Education Projects Division
Latin America and the Caribbean Regional Office

List of Abbreviations

AEITCC	Agricultural Extension In-Service Training and Communication Centre
AHA	Animal Health Assistant
AFA	Agricultural Field Assistant
CARICOM	Caribbean Community Common Market
CFTC	Commonwealth Fund for Technical Cooperation
CHS	Community High Schools
GAIBANK	Guyana Cooperative Agricultural and Industrial Bank
GSA	Guyana School of Agriculture
GTI	Georgetown Technical Institute
GUYSUCO	Guyana Sugar Corporation
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation in Agriculture
LASPAU	Latin American Scholarship Programme of American Universities
MOA	Ministry of Agriculture
MOE	Ministry of Education
PIU	Project Implementation Unit
PAHO	Pan-American Health Organization
REPAHA	Regional Education Programme for Animal Health Assistants
RTC	Rural Training Centre
UG	University of Guyana
UNDP	United Nations Development Programme
US	United States
WHO	World Health Organization

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

TABLE OF CONTENTS

Table of Contents (contd.)

List of Annexes

PROJECT COMPLETION REPORT

GUYANA - SECOND EDUCATION PROJECT (LOAN 1106/CREDIT 544-GUA

PREFACE

This is a Project Completion Report (PCR) for the Second Education Project, for which Loan 1106 and Credit 544-GUA were approved on April 15, 1975, in the sum of US$12.0 million (Loan US$8.0 million and Credit US$4.0 million). The original Closing Date was June 30, 1980 (extended to December 31, 1983) and the final disbursement was made on April 25, 1984. The Loan Agreement (Loan 1106) was amended on June 8, 1983 and this resulted in the cancellation of US$1.0 million of the Loan.

The PCR was prepared by a UNESCO team in June 1984, and was based on: (a) the findings of a UNESCO completion mission which was carried out from March 3-6, 1984; (b) the study of records, reports and other data in Bank files that relate to this project, and (c) a review of the Borrower's completion Report which was prepared by the Project Unit.

The project has not been audited by the Operations Evaluation Department. Copies of the project completion report were sent to the Government for comment in September 1984. No comments have been received.

PROJECT COMPLETION REPORT
GUYANA – SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Project Performance Audit Basic Data

Project data are as follows:

A. The Loan/Credit

	Appraisal Estimates	Actual or Current Estimates
Total project cost (US$ million)	18.9	19.38 1/
Loan/Credit Amount (US$ million)	12.0	11.0
Disbursed as of 31.05.84		9.7
Cancelled as of June 1983		1.0
Outstanding as of 31.05.84		1.3
Date physical components completed	30.6.79	June 1984
Months after Credit/Loan Agreement	48	108
Proportion completed by above date (%)	100	95
Proportion of time overrun (%)	-	125
Institutional performances	-	fair

Cumulative Estimates and Actual Disbursements (see also Annex 15)
(US$ million)

	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83 2/	FY 84 2/
Appraisal estimate	0.1	1.3	4.3	8.6	11.7	12.0	(12)	(12)	(11)	(11)
Actual	-	0.03	0.26	1.0	1.5	3.2	5.5	6.4	7.8	9.7
Actual as % of Appraisal		2.3	6.0	11.6	12.8	26.7	45.8	53.3	70.9	88.2

B. Chronology of Events

	Plan	Actual
First mention in files		October 1972
Government application		February 1974
Negotiations		January 1975
Board Approval		15 April 1975
Date of Credit/Loan Agreement		9 May 1975
Loan Effectiveness		8 July 1975
Completion Date	30 June 1979	31 Dec.1983
Closing Date	30 June 1980	31 Dec.1983

Borrower	Government of Guyana
Executing Agency	Ministry of Education and Social Development
Fiscal year of Borrower	1 January to 31 December
Follow-on Project name	None

Notes: 1/ At an exchange rate average of 1 US$ = 3 G$.
2/ After the cancellation in June 1983 of US$ one million, the actual loan/credit amount is US$ 11 million.

Field Mission Data

Mission	Sent by	Month/ Year	No.of Weeks	No.of Persons1/	Staff Weeks	Date of Report
Identification	Unesco	10/72	1.6	4(BCDE)	6.4	01/73
Reconnaissance	Bank	09/73	1.6	3(ABE)	4.8	09/73
Preparation	Unesco2/	05/74	3.0	5(ABCDE)	15.0	05/74
Appraisal	Bank	06/74	3.8	5(ABCDE)	19.0	04/75
Total			7.0		45.2	
Supervision I	Bank	06/75	0.7	2(CE)	1.4	24/06/75
" II	"	11/75	0.7	1(A)	0.7	24/12/75
" III	"	03/76	0.6	1(E)	0.6	09/03/76
" IV	"	08/76	0.6	1(E)	0.6	01/10/76
" V	"	05/77	0.9	2(BC)	1.8	10/06/77
" VI	"	07/77	1.3	1(C)	1.3	29/08/77
" VII	"	10/77	1.9	2(AC)	3.8	11/11/77
" VIII	"	12/77	0.7	1(C)	0.7	28/12/77
" IX	"	03/78	1.1	2(AD)	2.2	07/04/78
" X	"	10/78	0.7	2(AD)	1.4	19/01/78
" XI	"	03/79	0.3	1(A)	0.3	08/05/79
" XII	"	05/79	0.6	1(E)	0.6	29/05/79
" XIII	"	05/80	0.9	1(A)	0.9	02/06/80
" XIV	"	05/82	2.4	2(AB)	4.8	30/06/82
" XV	"3/	11/82	1.1	2(CD)	2.8	03/12/82
" XVI	"	02/83	1.4	2(AC)	2.2	22/03/83
" XVII	"	10/83	0.7	2(AC)	1.4	07/11/83
Total			16.6		28.3	
Completion	Unesco	03/84	3.0	3(ABD)	9.0	05/05/84

Currency Exchange Rate

Name of currency (abreviation) Dollar (G$)

Year:	Exchange rate:
Appraisal Year (1975)	US$ 1 = G$ 2.16
Intervening years (average)	US$ 1 = G$ 3.00
Completion Year (1984)	US$ 1 = G$ 3.75

Notes: 1/ A - architect; B - general educator; C -technical educator; D -agricultural educator, E -economist.
2/ With Bank participation.
3/ With Unesco participation.

PROJECT COMPLETION REPORT

GUYANA - SECOND EDUCATION PROJECT (LOAN 1106/CREDIT 544-GUA)

HIGHLIGHTS

Project Objectives and Content

A loan of US$8 million and a credit of US$4 million to assist in financing the Second Education Project in Guyana were approved and signed in May 1975. Total project costs were estimated at US$18.9 million.

The project would assist the Government of Guyana to improve secondary education and strengthen agricultural education and training. The project aimed at: (i) improving the relevance of the education system to the needs of the economy and local communities; (ii) meeting specific manpower requirements in priority sectors of the economy, particularly in agriculture, to support the economic development strategy and; (iii) increasing the productivity of the workforce and developing greater self-reliance among workers (para. 1.2).

The secondary education part of the project consisted of: (i) establishing and building seven four-year community high schools which will replace the "tops" of primary schools; (ii) converting ten existing secondary schools into multilateral type schools similar to those established under the first project; and (iii) expanding and rebuilding the secondary teacher training college (para. 1.3 [i]).

The agricultural education and training part aimed at expanding both formal and non-formal training opportunities for farmers, rural residents, extension workers, animal health technicians and other types of agricultural technicians (para. 1.3 [i]).

The technical assistance component aimed at providing specialist services and a fellowship program to support the implementation and operation of the above project components (para. 1.3 [ii]).

The project included also a study to assess the effectiveness of the vocational and technical education and training system (para. 1.3 [iii]).

Project Implementation and Outcomes

During the implementation period, the project underwent some changes in content and scope. Annex 1 gives summarized information on the objectives, proposed and implemented components and project outcomes.

The main changes in the secondary education component concerned the reduction in the number of institutions built, the need to rehabilitate five existing secondary schools and to provide equipment and textbooks to non-project schools. Except for the deletion of the Rural Training Centers, the agricultural part was implemented as foreseen. The Technical Assistance component was fully implemented and fellowships were increased. No changes were introduced in the study component (para. 1.4).

Managerial, technical and financial problems led inevitably to long delays in implementing the project, which in turn increased by 52% the total cost of the Project in terms of local currency (paras. 2.3, 3.2-3.3).

Conclusions

Given the high priority accorded to the Guyana rural sector and to the training of the related middle level technicians, the agricultural institutions of the project received during the implementation period the needed support from the Government (paras. 2.1-2.2). They were adequately built and equipped (paras. 2.12, 2.13, 2.16 and 2.17).

This part of the project significantly contributed to the development of the sector by: (i) responding to Government policy to supply most of the demand of Agricultural technicians and teachers (para. 4.17), and (ii) firmly establishing a Caribbean regional institution (REPAHA) jointly operated by the participating countries which, if successful, can be used as a model to be replicated in the Region (para. 4.20).

The secondary education part of the project, had a slow implementation start up because of the long time taken to procure the architects services for the design of the concerned institutions (para. 2.7). A consequence of the long delays involved was the high cost escalation coupled with financial constraints of the Government which, in turn, led to reduce the scope of this part of the project (para. 1.4). In spite of the said reduction the final costs were higher than foreseen in the Appraisal due to the cost escalation (paras. 3.2-3.3).

Although this part of the project has not significantly contributed to the expansion of secondary education, it has encouraged innovations of structure and organization of schools. At the same time they have established model Community High Schools in terms of the facilities required to implement their program. For the Project Institutions to be successful and to achieve the Project objectives, it is necessary that the Ministry of Education allocates sufficient financial resources to operate the vocational and science facilities provided (paras. 4.2, 4.3 and 5.1).

In the view of the World Bank the project was only partially successful. While project objectives related to strengthening agricultural education and training were generally met, the same was not true of those objectives aimed at improving secondary education. In the latter case the new facilities of the eight secondary schools were not yet in operation at the time of the completion mission, thus an assessment of concrete educational outcomes was not feasible. Furthermore, the projected enrollment for the teacher training college had not yet materialized. Finally, while the results of the technical assistance program were generally positive, the effectiveness of the fellowship component was inconclusive and the usefulness of the study on the effectiveness of vocational and technical education was questionable. These mixed results are attributable to a combination of factors that relate to: the long project implementation period, the Borrower's financial constraints which adversely affected the time provision of counterpart funds, weaknesses in the Borrower's managerial capacity, and a project design that became too complex with the inclusion of multiple components.

I. Background and Content of the Project

Project Generation

1.1 The Bank Group assistance to education was discussed with the Government in September 1973 on the basis of the Unesco Project Identification Report of January 1973. In February 1974, the Government submitted a formal request to the Bank which led to the Preparation of the Project by the Government with Unesco assistance[1/]. The proposal was appraised in May/June 1974, approved in April 1975 and became effective in July of the same year. The estimated cost of the Project was US$ 18.9 million of which US$ 12 million were the Bank-Group support.

Project Description

Objectives

1.2 As stated at Appraisal, the project would support the priority areas of the Government's education development strategy as defined in the Second Development Plan (1972-1976) and aimed at:

(i) improving the relevance of the education system to the needs of the economy and the local communities;

(ii) meeting the specific manpower requirements in priority sectors of the economy, in particular the agricultural sector; and

(iii) increasing the productivity of the workforce and developing greater self-reliance among workers.

Components

1.3 The project content at Appraisal consisted of:

(i) construction, furnishing and equipping of seven community high schools, extensions to ten multilateral secondary schools, one secondary teachers' training college, an extension to the Guyana School of Agriculture, one Agricultural training, extension and communication centre, six rural training centres and one regional animal health training centre;

(ii) provision of technical assistance comprising seven man/years of specialist services and 57 man/years of fellowships to support implementation and operation of the above project items; and

(iii) a study to assess the effectiveness of the vocational and technical education and training system in meeting the country's socio-economic objectives and manpower needs.

Amendment

1.4 At the end of 1982, the implementation of the project was about four years behind schedule. This situation was the result of organization and management

---

1/ The Government decided to strengthen the Teachers Training College instead of the Faculty of Education as recommended by the Unesco Identification Report and to develop community high schools in place of the recommended intermediate secondary schools.

problems as well as financial constraints of the Borrower coupled with the escalation of costs. Therefore on 11 November 1982 the Government formally requested the Bank Group to amend the project as follows:

(i) reduce the project to facilities already under construction[1/] and to delete the rural training centres, construction of which had not yet started;

(ii) distribute furniture and equipment already procured to secondary schools other than those under construction and procure English language textbooks;

(iii) rehabilitate the five secondary schools to which extension of practical facilities were attached; and

(iv) increase the fellowships programme to train Government officials in a number of professional areas.

1.5 On 8 June 1983 the Government request was agreed by the Association and the Bank. As a consequence the project content was redesigned, as shown in Annex 2, and an amount of one million US$ was cancelled, reducing the Bank Group's support t US$ 11 millicn.

Covenants

1.6 The Project Agreement included several covenants which were partially or totally implemented as shown in Annex 5.

II. Project Management and Implementation

Management

2.1 The Project was executed by the Project Implementation Unit (PIU) established for the First Project under the Ministry of Education (MOE). To take advantage of the experience gained in the First Project, the key personnel and services were retained. Until 1976 the two projects had to be managed simultaneously, therefore, additional staff, including a cost controller, was required.

2.2 Because of the agricultural component, one liaison officer was appointed from the MOA and one from the Guyana School of Agriculture.

2.3 Management of the Project was affected by the following problems:

(i) the PIU was not vested with sufficient decision-making power to carry out the tasks efficiently and expeditiously. Rather it played the role of intermediary between the Government and the Bank; and

(ii) in addition to delays in appointing new staff, there was a large staff turnover among key personnel resulting in changes of approach and inevitably incurring further delays.

1/ Three of the seven community high schools, five extensions of the ten secondary schools, one secondary teacher training college, the extension of the Guyana School of Agriculture, the Agricultural Extension, In-Service Training and Communication Centre, the Regional Educational Programme for Animal Health Assistants.

Bank Performance

2.4 While under implementation, the project was visited by 17 Bank supervision missions which represent an average of two visits per year. Because of total stagnation of work in 1981, the project was not visited by any supervision mission. It seems that given the complexity of this project, the staffing of some missions may have been inadequate as about 40% of them had only one staff member. Fortunately these missions were generally complemented by the Project technical assistance staff available.

2.5 As documented in the Aides Memoire, the missions not only continually monitored and advised on all aspects of the project but actually worked with officials from the Government agencies concerned to help them to prepare plans, schedules and guidelines to expedite the project and minimize the effects of lost time. Unfortunately this did not prevent delays and cost escalation.

2.6 The Bank acted with flexibility and understanding in the search for solutions to the problems faced during much of the life of the project, such as agreeing to the use of loan funds to import critical building materials, pay expenses of student fellows stranded abroad, rehabilitate schools to which extensions were added, purchase English language textbooks, and Science laboratory equipment.

Implementation of Physical Facilities

2.7 Compared with Appraisal estimates (Annex 10), the civil works component had a slow beginning and long implementation period, due mainly to the length of time taken to appoint consultant architects, the shortage of counterpart funds and the foreign exchange constraints to importing construction materials.

Professional Services

2.8 The Government insisted on Guyanese professionals to provide the consultancy services. After more than two years of negotiations about work conditions and fees, 14 local consultant firms were appointed to prepare designs and structural, civil, electrical and sanitary engineering drawings, as well as quantity surveying. Except for one firm, architects were unable to supervise the civil works, therefore, the PIU and their clerks on site, carried this out. Management consultants supervision increased substantially at the end of the project, following the agreement on the urgent rehabilitation of existing schools expanded under the project. In addition, the management consultants role covered technical assistance to contractors, help in the preparation of construction schedules, plans for the procurement of materials, and construction manuals for future projects. This arrangement proved satisfactory.

Design

2.9 For designing the Civil Works the consultant firms were given copies of the schedule of accommodation and of the Master Plan which contain educational specifications drawn from the experience obtained during the implementation and operation of the First Project. The MOE and the MOA were involved in day-to-day consultations to expedite the preparation of plans, working drawings and contract documents. Construction drawings are traditional but sound.

2.10 Although Appraisal areas have been generally followed, (see Annexes 12 and 13), circulation areas are not well resolved and there are student supervision and building security problems. The requirements of the fire authorities, though necessarily stringent with timber superstructures, have not been economically met.

2.11 Abnormal room heights have necessitated the suspension of fluorescent fittings on steel chains, in order to achieve acceptable lighting levels. None of the workshops can be safely utilized because the electric and also gas services dropping from above on timber battens have deficiencies in their installation which require improvement. In the design of secondary schools it is evident that the architect was concerned with the creation of complicated forms rather than a simple economical and modest type of building.

2.12 These buildings and those of the Teachers' Training College are in marked contrast with the teaching, residential and communal facilities provided at the agricultural complex. These designs are simple and economical and the staff and students are well pleased and thus maintain the buildings in excellent condition. Double bunks are not popular in the bedrooms but fortunately there is ample space for single beds. The kitchens, with their stainless steel fittings, are not in use because there is no gas or electricity yet. Cooking is being done outside on wood fires and emergency charcoal stoves have been built in an ancilliary room. Some mistakes in basic design might have been avoided if the Master Plan had been strictly adhered to and the drawings carefully checked against the specifications by experienced school facilities planners.

Construction

2.13 The supply of materials and even local hardwoods, was erratic. In order to secure building materials, the purchase of cement, steel, hardware and paint was put in the hands of a Government corporation, and ultimately the Bank agreed to pay overseas suppliers for these commodities direct from loan/credit funds. It has been difficult for contractors to achieve the necessary standards due to the shortage of skilled operatives in the construction industry who had emigrated. The competency of the contractors combined with supervision of the PIU and the Clerks of Works produced a satisfactory level of workmanship.

2.14 Contracts for project components were signed between May and September 1979. Letters of award to contractors included a new condition: the compulsory incorporation of a management consultant firm. Due to disagreement of a contractor about the new condition, the Government revoked contract awards of the Teachers' Training College, extensions to the agricultural complex and a community secondary school; construction was executed under force account. These civil works were excluded from Bank financing due to misprocurement.

Sites and Services

2.15 Sites were generally well located but because the land is below median high tide level, an elaborate system of conduits and drains was necessary to cope with surface water during the rainy seasons. Sugar cane waste was often used as "fill" thus increasing foundation costs. Termite infestation was worse in such "fill" areas and pest control costs rose. Permanent water and electricity supplies are not yet available at any of the new sites. It is expected that water at least will be available for the opening of the new institutions.

Furniture

2.16 It had been hoped to provide much of the furniture from local sources but owing to the lack of suitable seasoned hardwood and standard designs, the industry was not prepared to commit itself to the sizeable quantities involved. Except for REPAHA, bids had to be called for twice before contracts were awarded to two overseas firms and one local manufacturer. When the project was amended the Bank agreed that the surplus furniture should be allocated to non-project secondary institutions. Meanwhile it is being stored in empty buildings owned by the MOE. Knock-down items are being assembled by students and teachers. The furniture is suitably robust and of good design.

Books and Equipment

2.17 Procurement of books and equipment was carried out in two stages. At the first stage contracts were awarded to six overseas firms from three countries. All books were delivered to the Guyana School of Agriculture, the Teachers' Training College and the MOE Supervisor of School Libraries. Equipment which has not yet been delivered is stored in Government accommodation, which may not be suitable for long periods of storage due to humidity. Distribution will be undertaken by the MOE at the start of the 1984-85 school year.

2.18 At the second stage, the Bank agreed to allocate loan funds for the procurement of additional textbooks, science equipment and materials for the new Materials Resource Centre and for existing secondary schools (see paragraph 1.4). Contracts for these were awarded to English firms and delivery was expected during May 1984.

Maintenance

2.19 The Government now has no budget for maintenance and rehabilitation. Schools have been informed that funds must be subscribed by parents and raised by their own. Such funds are inadequate to meet the needs.

Implementation of the Technical Assistance Component

General

2.20 This component, designed to assist the governmental agencies to implement the project, consisted of:

(a) Specialists. Approximately eight man/years to assist in: (i) drawing up a new education law and programming reform measures; (ii) preparing curricula for technical and agricultural institutes; (iii) developing the rural training centres and the Agricultural Extension In-Service Training and Communication Centre; and (iv) carrying out a study assessing the effectivness of vocational and technical education and training.

(b) Fellowships. Originally 57 man/years were allocated. In 1983, an additional 65 man/years were allocated as part of the Project Amendment which made a total of 122 man/years (see paragraph 1.4 and Annex 2).

Specialist Services

2.21 The original eight man/years of specialists were fully implemented between 1975 and 1979 although reallocation of man/years among the project institutions was made. This assistance was further increased by four man/years provided by the CFTC and the UNDP (see Annex 6).

2.22 To provide these services, the Government signed an agreement with Unesco in August 1976. However, only four man/years were implemented by this Agency, because the Government decided to hire Guyanese specialists on Government terms.

2.23 Specialist services were, in general, well executed. However, they met with two major drawbacks: (i) they were completed too far in advance of the completion of the Project institutions thereby losing effectiveness; and (ii) shortage of qualified personnel prevented the nomination of local counterparts for necessary follow-up.

Fellowships

2.24 Of the 122 man/years allocated, an estimated 106 man/years were implemented in two successive programmes:

(i) the first one was carried out by the PIU and the Civil Service Ministry. The latter was responsible for recruiting candidates, setting up the list to be approved by the Government and the Bank, and selecting overseas universities. Implementation began effectively in 1976 and was completed by 1980. The duration of the scholarships ranged from three months to two years each and the level ranged from certificate to university levels. Due to cost escalation, only 43 man/years of the 57 original man/years were implemented;

(ii) the second programme was the result of the Government's request (paragraph 1.4) to extend the project support to other fellows studying abroad. In March 1983, the Government signed an agreement with the Latin American Scholarship Programme of American Universities (LASPAU) for the identification of suitable candidates, monitoring and reporting on their performances. The Government took measures to ensure their return to Guyana on completion of their studies. Of the original 63 fellows identified to receive support, 52 received either full or partial funding from the Project. Eleven fellows chose to continue their studies at their own expense.

2.25 According to the Civil Service Ministry, the majority of the scholars of the first phase returned to the country after graduation, but most of them were assigned to sectors other than those for which they were trained. This situation adversely affected the educational purposes of the Project's fellowships programme. In the second phase only 16 fellows had returned as of December 31, 1983. The others are expected back in June 1984.

The Effectiveness Study

2.26 The study was carried out by a special team appointed by the Government and supported as follows: two man/years by the project and one extra man/year by the CFTC (see Annex 6). The report, published in May 1979, made the following recommendations, two of which, (i) and (iv), are going to be implemented as part of the rationalization of the educational system to be undertaken by the MOE:

(i) establish a national training commission to deal with technical education and training;

(ii) improve the physical facilities of the GTI and the Guyana National Service for the training of technicians and craftsmen;

(iii) establish a new technical training complex for technicians, instructors and teachers; and

(iv) redesign the syllabus of the CHS and multilateral schools to enable their graduates to enter technical institutions and apprenticeship programmes.

By the time the report was published, the manpower and training situation in the country had changed so much that the results were not relevant to the prevailing conditions and some of the recommendations were beyond the financial means of the country.

III. Project Costs and Financing

Project Cost

3.1 At Appraisal (see Annex 9), the estimated total project cost was G$ 37.74 million and the actual cost was G$ 57.2 million. The table below gives project estimated expenditure by category.

Appraisal and Actual Estimated Expenditure by Category
(in millions)

Category of Expenditure	Appraisal Estimates		Actual Costs1/		Final Cost as % of Appraisal	
	US$	G$	US$	GS	US$	G$
Construction and Site Development, Professional Fees						
- Without Contingencies	9.36					
- Contingencies	4.63					
Total Civil Works	**13.99**	**27.98**	**14.23**	**39.90**	**101.7**	**140.5**
Furniture and Equipment						
- Without Contingencies	2.16					
- Contingencies	1.26					
Total Furniture and Equipment	**3.42**	**7.00**	**3.13**	**11.33**	**91.5**	**161.8**
Technical Assistance						
- Without Contingencies	0.68					
- Contingencies	0.104					
Total Technical Assistance (Inc. Effectivness Study)	**0.784**	**1.58**	**1.51**	**4.74**	**194.0**	**300.0**
Project Administration						
- Without Contingencies	0.50					
- Contingencies	0.09					
Total Project Administration	**0.59**	**1.18**	**0.51**	**1.83**	**86.4**	**155.1**
Total	**18.9**	**37.74**	**19.38**	**57.20**	**102.5**	**151.6**

3.2 In spite of the reduction in scope of the project (see paragraph 1.4), the actual cost was some 52% above the Appraisal estimate in terms of G$. In terms of US$, the actual project cost was 19.38 million, against the 18.90 forecast which meant an overrun of 2.5%. The difference of overrun cost expressed in G$ and US$ is due to devaluation of GS during implementation. High cost escalation and inflation rate, coupled with about five years of delay in project implementation, have proved to be the prime reasons for the cost overrun.

Note:1/ Including estimated additional expenditure required up to the closing date.

3.3 The variations between Appraisal and actual costs in terms of Guyanese dollars were mainly caused by delays in initiation of professional services and civil works and the extended period of implementation. Other causes included:

(i) the actual cost of civil work amounted to 69% of the total project cost and exceeded Appraisal estimates by 40%; a large proportion of this difference is due to the significant increases of building materials and labour costs;

(ii) the actual cost of professional fees went from 2.43 to 4.09 G$ million which represents an overrun of 68%; the major increase must be due to the unforeseen appointment of the local firm of management consultants for the rehabilitation of the five schools to be extended, when fees would be at least twice that applying to new buildings; this firm also undertook the planning, supervision and management of the civil works on behalf of the PIU which would normally have undertaken this work had the necessary qualified staff been available;

(iii) estimated total expenditure for furniture and equipment, representing 20% of the total project cost, was 11.3 million G$ or 62% above Appraisal estimates; this is due to the large quantity of furniture which had to be imported and the cost escalation involved in the latest (1984) procurement of equipment and textbooks;

(iv) the technical assistance programme, including the Effectiveness Study represents 8.3% of the total project cost as against an estimated 4.2% at Appraisal; the actual estimated technical assistance cost was 4.74 million G$ which is a 200% overrun; the main reason for this increase was the additional programme of 65 man/years of fellowships, (see paragraph 2.19) and;

(v) the cost increase of 55% in project administration can be accounted for by the fact that the project was extended five years beyond Appraisal estimates.

Unit Costs

3.4 A comparative analysis of planned and constructed areas and estimated costs per square foot and per student place is given below:

	Appraisal	Actual	Final as % of Appraisal	Remarks
Average area per student	64.5	64.1	nil	Annex 12
Average cost per square foot	88.8	224.8	253.7	Annex 13
Average cost per student place	5,155.0	14,416.5	279.6	289.0 1/

3.5 As expected, the average area per student was under control, but the estimated actual costs per square foot and per student place are about two to three times higher than the original estimates, which reflect the increases already discussed above. Variations of costs per square foot as shown in Annex 13, range from 63.8 to 188.1. The lowest figure relates to REPAHA which was built on schedule before the dramatic cost escalation and the highest figure quoted corresponds to the GSA item which required highly specialized equipment. Due to the transportation cost to the remote site of St. Ignatius, the construction was exceptionally expensive, reaching 424.2 G$ per square foot.

1/ These figures are drawn from the estimated Appraisal and actual costs of physical facilities divided by student places, presented in Annex 13, footnote 6/.

Project Financing

3.6 The project's external financing of US$ 12 million was secured from the World Bank group through a loan (1106-GUA) of US$ eight mil'on and a credit (544-GUA) of US$ four million. The table below depicts the estimated Appraisal and actual expenditures in terms of G$ by category and source of financing.

Estimated Appraisal and Actual Project Financing by Category (in G$ million)

Category	Appraisal[1/] Local	Appraisal[1/] Foreign	Appraisal[1/] Total	Actual Local	Actual Foreign	Actual Total
Civil Works & Prof. Services	8.62	10.10	18.72	24.29	15.04	39.33
Furniture & Equipment	0.05	4.42	4.47	0.05	11.24	11.29
Technical Assistance	-	1.32	1.32	-	4.74	4.74
Project Administration	-	1.00	1.00	-	1.79	1.79
Unallocated	5.07	7.16	12.23	-		
Total	13.74	24.00	37.74	24.34	32.81	57.15
Percentage	36	64	100	43	57	100

Source: Appraisal Report and PIU estimates.

3.7 Bank support, estimated at 64% at Appraisal, was reduced to 57% at completion, due to the cancellation of US$ one million, (see paragraph 1.5). On the other hand, the Government financing increased from 36% to 43% at completion, mainly because civil works expenditure on some institutions was excluded from Bank financing (see paragraph 2.13).

Disbursements Schedule

3.8 Actual disbursement started over one year behind Appraisal and due to delays in implementation the rate of withdrawing proceeds was slow (see Annex 11). Indeed at the original closing date (30 June 1980) only 17 per cent of Appraisal estimates were disbursed. Moreover, by May 1984 only about 88 per cent of the amended loan/credit (11 million) were disbursed. The category which lags well behind schedule with 24 per cent undisbursed funds, is physical facilities.

Note: 1/ Contingencies excluded.

IV. Operation of Project Institutions

4.1 Several working groups were established within the project components to deal with educational aspects such as curricula, teacher training, textbooks, examinations, etc., to be used in the project institutions and thus comply with some of the covenants of the Agreement (see Annex 5).

Community High Schools

4.2 None of the three schools is actually operating. They will open for the next school year in September 1984. There is no doubt that the enrolment target of 1,920 students, established in the Project Amendment (see Annex 2), will easily be met. However, as stated in the Appraisal, the quantitative contribution of the project schools to the expansion of lower secondary education, will be very sma'l as the places provided will be used mostly to replace existing enrolment in the secondary section of the primary schools ("tops"). Moreover only three of the originally appraised seven schools remained a part of the Project.

4.3 The expected performance of these schools can be inferred from the current experience of the country. In 1981/82, there were 30 community high schools with a total enrolment of 11,503 students. Enrolment demand is not as steady as in other secondary schools and has decreased since 1978/79. Teachers, particularly in vocational subjects, are scarce. There is also a lack of science teachers. Since 1982, the MOE has allocated no financing for schools to buy consumable materials for workshops and farms. To overcome this, schools have to organized their own fund-raising activities in the community, therefore, practical work experience for students is very limited.

4.4 In order to monitor the development of community high schools, the MOE carried out three tracer studies for the graduates of years 1977, 1978 and 1979. Unfortunately, only two schools had graduates in those years, and similar studies were not extended to the "tops" of primary education, therefore care should be exercised in interpreting or generalizing these results summarized below (see also Annex 3). The results are: (i) more than 50 per cent of the graduates are still unemployed two years after graduation; (ii) the majority of students did not have any work-study experience and the majority of those who had profited, were in jobs unrelated to their field of training; (iii) only one per cent of graduates were self-employed; (iv) the rate of employment after two years of graduation, decreases from the first to the third study group; (v) relatives and acquaintances rather than 'work-study attachments' were the first source of employment; (vi) most of the employed are working in a field unrelated to their previous training at school; (vii) about 20 per cent of the graduates have undertaken further training mostly related to their previous training or to their 'work-study attachments'; (viii) employers in general, stated that although the graduates were inadequately trained for work, they had positive attitudes towards it; and (ix) they admitted that the community high school certificate is not fully recognized as guaranteeing proficiency. In spite of the above results, no follow-up actions have taken place.

4.5 The recurrent annual unit cost is difficult to estimate, given the prevailing conditions. In 1980/81, the calculated unit cost was G$ 551.83 1/, equivalent to US$ 196.21 1/, and as teachers' salaries have almost doubled since, the present cost would be estimated at around G$ 1,100, equivalent to US$ 295 2/ which is higher than the estimated cost in seven Caribbean countries (see 1982 Education Sector Studies).

1/ Ministry of Education, A Digest of Education Statistics, 1980/81, page 20.

2/ Exchange rates 1980/81 = 2.81; 1984 = 3.75. The project unit report estimates the unit cost at US$ 490.26 which in the Mission's view is too high.

Multilateral Schools

4.6 Five existing secondary schools were converted into multilateral schools by adding physical facilities, furniture and equipment. None of these new facilities is in operation. In one case (North Georgetown), the extensions are partially used as administration offices. All five are under the rehabilitation part of the project which has not yet been completed. It is foreseen that all buildings will open by September 1984. Although no plans have been made to accommodate the additional enrolment of about 800, there is no doubt that the target established in the Project Amendment will be achieved.

4.7 The multilateral schools will have the necessary facilities to implement the multilateral programme in terms of space and equipment, but will also face the same financial constraints as the community high schools.

4.8 As concerns recurrent cost, as explained in paragraph 4.5 above the unit cost would be around US$ 295, the same as for community high schools.

Secondary Teachers' Training College

4.9 In 1983 the college for training secondary school teachers moved into the partially completed new building. All classrooms are being utilized, but workshops and laboratories are not yet complete. At present the college runs a three-year programme which includes teaching practice in schools. Entrance requirements are the same as those for the university. From a total of 15 teachers, seven have been trained under the Technical Assistance component of this project.

4.10 The problem besetting the college, is lack of demand for places. In line with the Appraisal Report, the college has a capacity of 450 students, to produce 150 teachers per annum. However, the present enrolment is 53 students, distributed in five different specialities. In 1982 there was no intake at the college. As can be seen in Annex 4, since 1976, enrolment has never exceeded 120 students. With the present enrolment, the student/teacher ratio is 3.5 students per teacher. If the 50 science teachers on in-service training are taken into account, the ratio is 7:1.

4.11 Reasons advanced for the low demand are: (i) compared to other economic sectors, teachers pay is low; (ii) the low status of the profession; (iii) the same entrance requirements as the University; and (iv) the small supply of secondary school graduates (517 in 1981) who can meet the entrance requirements of the first year of all post-secondary education institutions.

4.12 As all students receive a subsidy while at college of about G$ 700 (G$ 150 for residents in Georgetown), they must sign a guarantee to work for at least three years with the MOE. There is no systematic follow-up of graduates, but the principal of the college affirms that all graduates comply with the bond but leave the profession and the country afterwards.

4.13 The college has reached an agreement with the Carnegie School of Home Economics and the National School of Arts to train teachers in these subjects, but no agreement has yet been reached with the corresponding institutions to train teachers for industrial arts and agriculture. Consequently, there are no pre-service training programmes in these subjects.

4.14 In the college, but functioning as an independent unit, there is an in-service teacher training programme. The trainees are teachers from community high schools and the "tops" of primary schools. Enrolment figures are as follows.

Subject	1979	1980	1981	1982	1983
Home economics	26	17	20	9	17
Industrial arts	10	20	9	42	-
Agriculture	9	8	4	8	4

Enrolment in this programme is based on the yearly appointment of vocational teachers, which in turn depends on the availability of candidates (paragraph 4.13).

4.15 Since 1982 the college has been operating an in-service training programme for 50 science and mathematics teachers. The trainees attend classes two days a week and work three days in schools. The duration of the programme is two years for primary and three years for secondary school teachers.

4.16 The recurrent unit cost in 1981 is reported to be G$ 2,122.42. Taking into consideration last year's salary increase, it could be estimated today at about G$ 4,200, equivalent to US$ 1,120, which is low compared with other institutions of post-secondary education (see paragraph 4.19).

The Guyana School of Agriculture

4.17 The new boarding facilities helped the GSA to increase enrolment from 128 to 195 in 1983. The expected enrolment of 216, including a larger proportion of female students, will be reached for the academic year 1984/85. About one third of this enrolment will consist of certificate students. Once this enrolment is reached, the proposed annual output of 105 graduates will be achieved. This output will help to compensate the technician attrition rate which is partially due to migration to other sectors or abroad and to meet the needs of the sector.

4.18 According to the 1982 figures, there are 12 full-time and 20 part-time staff at the GSA. The present ratio of about 12 students per teacher is acceptable. The full-time staff qualifications vary from diploma to B.Sc. and M.Sc. degrees. Given the qualifications of the teaching staff and the satisfactory equipment at the school, the quality of training is good. The administrative staff for operating the school and the school farms[1/] are sufficient. When the new facilities come into operation, the present staff resources will suffice.

4.19 The GSA recurrent budget and per capita cost of training was evaluated over the last four years and is shown below:

1/ The GSA possess three commercial farms.

Recurrent Budget, Enrolment and Training Costs

Year	Recurrent budget (G$)	Enrol-ment	Apparent Training Cost per year and per student (G$)
1979	1,330,000	165	8,060
1980	1,760,000	185	9,500
1981	1,840,000	166	11,100
1982	1,808,595	189	9,570

Source: The GSA.

Given the relatively small size of the school and the specialized field of training, the above cost of training is acceptable.

The REPAHA

4.20 This diploma level institution started operating in the new facilities in 1978/79. Currently 46 students (including 10 females in the second year) are enrolled, representing 11 Caribbean countries. Enrolment has decreased by about 20 per cent during the last two years because of the financial constraints of the countries participating. Up to the 1982 academic year, the output of the REPAHA was 186 animal health assistants (AHAs) of both sexes coming from 16 countries in the area (Annex 7). The output average of 31 graduates per year corresponds approximately to the planned objective of 36 per annum. The needs to be met in the five years to come are of the same magnitude as those estimated by the participating countries visited by an Evaluation Mission in 1982[1/]. Moreover it should be emphasized that the number of veterinary doctors in the area is still very small and an increase will inevitably lead to new demands on the AHAs.

4.21 At present, only one full-time local teacher, one local co-manager and one international manager are in their posts. The latter will be leaving in December 1984 when UNDP support ends[2/]. There is therefore, an urgent need to appoint local qualified full-time teachers to fill the still vacant posts. The other teaching staff is composed of 23 part-time specialists (or the equivalent of four full-time staff) originating from the participating countries, international agencies (PAHO, IICA) and Guyanese agencies.A ratio of about ten students per teacher is acceptable.

4.22 Up till now, the training staff have generally been highly qualified and this has led to a high standard of teaching. In this connection, all the countries visited during the evaluation mission expressed their satisfaction regarding the quality of training. The administrative staff and teaching assistants comprise 27 members including the co-manager. Training sessions, specialized courses and refresher courses for veterinarians and AHAs from the Caribbean region, have been organized by the REPAHA.

1/ REPAHA/UNDP/PAHO/WHO Evaluation Mission 10-29 May 1982.

2/ First Phase: January 1976 to December 1980 - US$ 1.2 million.
Second Phase: January 1981 to December 1984 - US$ 0.7 million.

4.23 The recurrent budget of the REPAHA is provided jointly by the contribution of the Government of Guyana and the participating countries through students' fees and fixed costs calculated following a participation formula. At present these costs are almost entirely paid for by Guyana. The students' fees for 1983/84 were fixed at G$ 10,750 (US$ 2,870) per student. The unit cost is roughly equivalent to the GSA training cost in 1982 (paragraph 4.19 above) and could be considered reasonable.

4.24 In spite of the achievements and the wish of the countries to continue and expand the fields of training, the REPAHA is facing the following administrative and educational problems and constraints:

Of the 17 participating countries, only:

(i) nine countries have committed themselves to the continuation of REPAHA;
(ii) six countries have paid the fixed costs;
(iii) 12 countries have signed Phase II whose objectives are given in Annex 8; each signatory commits itself to support REPAHA when international support is withdrawn;
(iv) eight countries have signed the legal document which, once ratified by CARICOM enables the REPAHA to become autonomous and to be provided with sufficient income to cover the school's expenses. The Government of Guyana, which already contributes heavily to the Centre, has shown some concern for its future as the REPAHA will have to become reliant on its own resources.

4.25 One other problem is that staff and students have no dining facilities in the compound because it was planned that REPAHA would be built near the GSA in order to share these and other facilities. This additional demand was taken into account in designing the GSA facilities which are consequently under-utilized in the latter and in need of construction at REPAHA.

The Agricultural Extension In-Service Training and Communication Centre (AEITCC)

4.26 The AEITCC has just been completed. The MOA recently held a meeting during which they planned all the details including final completion, furnishing and installation of equipment. The Centre has been placed under the control of the Extension and Education Division, MOA. A curriculum unit was created to ensure the quality of future training programmes. The centre would train about 400agricultural staff annually, on short courses of about one/two weeks with emphasis on extension techniques, advanced agricultural technology, job-related improvement, management and administration. The first ten-day training session was planned to start in April 1984 for regional extension officers.

4.27 The recurrent budget for 1984 was G$ 100,000. When the necessary number of staff are nominated and the centre is fully operational, the budget will have to be increased to meet expenses.

V. Conclusions and Recommendations

5.1 The Project assisted the country in improving secondary education and strengthening agricultural education and training. Concerning secondary education, the project institutions have the necessary facilities to make education relevant. However, the Government faces difficulties in providing adequate operational resources to accomplish such objectives. The Government is well aware of the situation and has started a process to rationalize the optimal utilization of already scarce resources. The agricultural institutions assisted by the project have been adequately built and equipped and their operation will respond to the policy of the Government particularly regarding the country's need for qualified middle-level technicians and agricultural educators.

Conclusions

Project Design

5.2 The Project proved to include too many components involving different Government agencies, which resulted in a complex design that was difficult for the PIU to implement.

Project Implementation

5.3 Major factors which adversely affected the implementation of the Project, included the following:

- (i) long decision making procedures including delays in procuring consultancy services.
- (ii) financial constraints of the country including low cash flow.
- (iii) inadequate staffing of the PIU to deal with all the various components.
- (iv) shortage of control of the Technical Assistance component.

5.4 Three tracer studies were completed for the graduates of two pilot-CHS (1977-1979). The results of the studies showed that the majority of the graduates found difficult to get employment and most of them had to continue their education or training. The Borrower learned the process for conducting tracer studies and copies of the studies were submitted to the Bank. Unfortunately the Borrower has not been able to continue tracer studies for other graduates.

5.5 Project costs exceeded appraisal estimates mainly because of the cost escalation due to the long period required to implement the Project.

Operation of Project Institutions

5.6 Although it is difficult to assess the outcomes of the multilateral schools, the CHS and the TTC because they are not fully operational, present practice indicates that performance of these institutions will be hindered unless the necessary means to operate the physical facilities are provided.

5.7 The demand of the secondary school teachers in the country cannot be met as long as the intake at the TTC is as low as at present.

5.8 The effectiveness of the Agricultural Project Institutions will not be reached if the problems of staffing and recurrent resources are not adequately resolved by the MOA.

Recommandations

For the Bank

5.9 At the identification stage complex Project designs should be avoided in countries with weak managerial capability such as Guyana.

5.10 New and innovative project components, such as community high schools, which by their very nature undergo changes and modifivations that may affect the outcomes of the project and impair the effectiveness of other inputs, need additional project support. To this end, a component to assist the Borrower to carry out those activities necessary to conceptualize, design and implement the said innovations should be included. The Bank might share some of the costs involved by providing development assistance as part of the supervision missions.

5.11 Project components with a heavy proportion of vocational, technical and science education and intended for large-scale implementation should be examined for the long-term cost implications of workshops, laboratories and farms, and if necessary, alternative financing proposed.

5.12 In order to improve Project implementation in countries like Guyana (see para. 5.9), the PIU should be strengthened through adequate staffing, and Technical Assistance including a coordinating commission with representatives from the agencies concerned.

For the Government

5.13 To provide teaching materials and inputs for vocational and science subjects, the Government may have to resort to differentiated and scaled contributions of parents to schools according to household income.

5.14 To increase the intake to the TTC, the Government may take two measures: (i) lower the entrance requirements in relation to other post secondary institutions, and (ii) increase the number of "O" level graduates by upgrading the three Project CHS to offer a five year secondary education to those students from other CHS who passed the secondary school proficiency examination.

5.15 The Report of the Study on Vocational and Technical Education and Training system should be implemented and periodically updated. As for agriculture, a more in-depth study on manpower education and training is needed.

5.16 Most of the graduates of the project agricultural schools go on to further studies in the country or abroad and middle-level technician needs are not met. It is therefore suggested that a minimum of field experience (two/three years) be required as a prerequisite for university entrance as applied at the GSA specialized training.

5.17 A manager and an assistant should quickly be appointed to the AEITCC in order to organize the centre, to set up the programme of work and establish the resources required if the centre's operation is not to be impaired.

5.18 The large proportion of part-time teaching staff is a major problem at the REPAHA. In order to maintain the good level of training and to ensure future stability, it is recommended to the Advisory Board that more full-time staff be appointed.

5.19 Given the financial difficulties faced by the participating countries, it is recommended that the Advisory Board seek bilateral or multilateral assistance to provide full-time teachers and the needed additional facilities. The success of such a regional institution will encourage CARICOM countries to establish similar institutions.

5.20 As the RTCs have been deleted, advantage should be taken of the existing Extension and Marketing Centres (EMCs) which were not funded by the project but whose objectives are similar to those of the RTCs. In order to improve the training of farmers, the Division of Extension and Education should be closely involved in establishing a medium-term extension and training programme for the utilization of the EMCs with the full support of the AEITCC.

5.21 Projects fellowships plans should clearly establish where the candidates studying abroad will work upon returning to the country in order to make effective contribution to Projects Institutions.

5.22 Priority should be given in the Project schools to correct the installations for electricity and gas, coming from above.

5.23 It is necessary to carry out a programme of maintenance for the Project school buildings. It is thus essential, as matter of urgency, to:

(i) identify the necessary repairs under three headings - immediate, within two years, and within five years;
(ii) institute a rolling programme of repairs and rehabilitation; and
(iii) set aside the necessary funds.

It would seem that the PIU, whose life must now extend to the final commissioning of the current project, should thereafter be the agency entirely suitable to prepare estimates and implement the rolling programme. To properly fulfil this role, the PIU must be strengthened by the appointment of a qualified architect. Neglected buildings earn no respect and do not fulfil their proper functions.

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Highlights of Project Achievements

	Objectives	Proposed at Appraisal	Implemented	Operation
A.	Initiate a pilot programme of new community high schools	7 schools, furnished and equipped. 4,480 student places to replace the "tops" of primary schools.	3 schools, furnished and equipped. 1,920 student places.	a. None of the schools is operating, they will probably open in September 1984. b. Although facilities are up to standard, schools will face a shortage of human, technical and material resources. c. The curriculum is different from other secondary schools, making student transfer difficult. d. Consequently an exam at the end of the third year to facilitate transfer is almost meaningless. e. No curriculum-supporting materials will be available.
B.	Extend diversified curriculum introduced into multilateral schools of the first project.	10 practical teaching units attached to 10 secondary schools. Furnished and equipped. Each unit has 2 workshops, home economics rooms and science labs. 1,680 new places. 4 staff houses.	5 practical teaching units attached to 5 schools. Furnished and equipped. 840 new places. No staff houses built.	a. None of the practical teaching units are in operation now. Should be open in September 1984. b. Schools will face shortage of human, technical and material resources. c. Subjects dependent on availability of teachers in schools rather than prescribed curriculum. d. Subject content greatly determined by examination papers. e. Exam. papers are prepared by external agencies: the Caribbean Examinations Council and the London Board of Examinations. f. No curriculum supporting materials will be available.

Objectives	Proposed at Appraisal	Implemented	Operation
C. Rehabilitation of Multilateral Schools	Not foreseen	General physical rehabilitation of the 5 schools converted into multilateral schools (see B above).	a. All schools have been operating under difficult conditions during renovation work. b. Normal operation of schools expected in September 1984. c. Furniture and equipment for rehabilitation are provided by the Project.
D. Distribution of Educational Materials	Not foreseen	Distribution of furniture, equipment and English textbooks to non-project schools.	a. Government had already imported furniture and equipment for the initial proposal when the decision to amend the project content was taken. b. The importation of English language textbooks, was authorized due to their shortage and the lack of foreign exchange to fill the gap. c. Some schools do not have the necessary space to properly install the equipment. d. Schools will face the problems of shortage of resources.
E. Provide facilities for secondary education teacher training.	Construction of a new college located in Turkeyen, adjacent to other post-secondary institutions. Furnished and equipped. 450 student places. 23 m/y fellowships to train trainers.	The teacher training college was built in Turkeyen as planned. Furnished and equipped. 450 student places. 23 m/y fellowships provided to college professors.	a. The college is operating in the partially completed new building. Classrooms are fully utilized but workshops, home economics rooms, science labs., art compound and cafeteria are uncompleted. b. The college has not achieved its enrolment capacity of 450 students. Presently 53 students are enrolled. Student/teacher ratio of 3.5.:1. c. The college has arranged with the schools of home economics and arts to train teachers in those subjects, but it has not managed to make similar arrangements with the schools of agriculture, industry and commerce, therefore no training in these vital areas is provided.

Objectives	Proposed at Appraisal	Implemented	Operation
			d. Curriculum includes agriculture as a compulsory subject but not industrial art. e. A total of 14 fellowships were awarded to professors of the college of which 7 have returned to work. f. Curriculum content and exams. are the responsibility of the staff. g. Both primary and secondary colleges assisted by the two Bank projects are considered by the Government as the basis on which to establish the National Institute of Education which will also include curriculum development.
F. Expand agricultural technician and teacher outputs to meet Sector's needs.	Expand boarding facilities of the GSA. Furnished and equipped. 88 student places. 10 m/y fellowships. 1 m/y specialist.	Furnished and equipped. 88 additional boarding student places. 5 m/y fellowships. 1 m/y specialist.	a. The GSA has been operating with its initial boarding capacity of 128 places and a part of the new places. b. The total additional boarding places will be utilized within academic year 1984/85. c. The curriculum implemented with the TA component of the Project, for a new Diploma of Agricultural Mechanization came into effect during the academic year 1979/80.
G. Establish a programme for systematic in-service training to upgrade about 400 extension and other agricultural personnel.	Constructing a centre of 30 places capacity furnished and equipped. 3 m/y specialists. 5 m/y fellowships.	The AEITCC consisting of 30 furnished and equipped student places including boarding facilities. 4 m/y specialists. 4 m/y fellowships.	a. The activities of the existing small communication centre of the MOA will be included within the new centre. b. It will begin operating in April 1984. A first training session for regional agricultural officers has been planned. c. A complete array of communications, audiovisual and printing equipment is available.

Objectives		Proposed at Appraisal	Implemented	Operation
H.	At regional Caribean level establish the training of animal health assistants to meet the manpower needs to support the potentially prosperous livestock industry.	Constructing a centre of 72 furnished student places including boarding facilities. TA and equipment provided by the UNDP.	The REPAHA consisting of 72 furnished and equipped student places including boarding facilities. UNDP assistance fully implemented.	a. The REPAHA is the only component implemented within schedule. It has been operating since 1978. b. The curriculum has been updated at the request of the participating countries who meet annually in July within the Advisory Board of the Centre. c. Enrolment and output as planned.
I.	Increase agricultural productivity and improve rural living conditions.	Establish 6 pilot rural training centres including 216 student places and boarding facilities. Train 8,000 persons annually and provide field training for GSA students.	Sites selected & surveyed. Equipment listed, training of management staff begun.	Component deleted.
J.	Assist Government agencies to implement the project and improve the quality of the teaching staff.	Provision of TA programme including 7 m/y of specialists and 122 m/y of fellowships.	7 m/y specialists and 106 m/y fellowships were implemented.	The elements of the TA component are described under the relevant headings above.
K.	Review the effectiveness of the existing programme in vocational and technical education before making any further significant investment in this field.	Carry out a study to assess the effectiveness of vocational and technical education and training system.	Study completed.	Attempt was partially made to implement some of the recommendations of the study.

Annex 2

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Project Content After Amendment

		Appraisal Targets		Amendment (1983)	
	Construction of Facilities	No.	Student Places	No.	Student Places
1.	Community High Schools	7	4,500	3	1,920
2.	Extension of existing secondary schools	10	1,680	5	800
3.	Rehabilitation of existing secondary schools	-	-	5	3,300
4.	Secondary Teachers' College	1	450	1	450
5.	Extension to Guyana School of Agriculture	1	88	1	88
6.	Agricultural In-service Training & Communication Centre	1	30	1	30
7.	Regional Ed. Programme for Animal Health Assistants	1	72	1	72
8.	Rural Training Centres	6	216	deleted	-

	Technical Assistance	m/y	m/y
9.	Specialists (inc. the Study)	8	same
10.	Fellowships	57	122

Annex 3

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Summary of the Community High School Tracer Studies

(1977-1979)

	1977 %	1978 %	1979 %
Unemployed			
Unemployed not attending school	47	59	55
Work-study experience related to previous training	55	31	51
Satisfaction with school	69	85	80
Employed			
Self-employed	0	1	1
Employed after two years from graduation	46	18	24
Employed through work-study attachment	35	0	1
Job related to previous training	71	53	34
Satisfaction with school	86	71	61
Employers' positive perception of graduates	90	83	66
Further Training			
Additional training after graduation	7	22	20
Training related to work-study experience	0	63	30
Training related to previous training	80	50	90
Sample			
Total numbers	125	176	179
% Answers	67	55	6[illegible]

Source: Prepared by the Mission based on three follow-up studies of Community High School graduates - 1977, 1978 and 1979. Research Unit, Ministry of Education, Guyana.

Annex 4

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Secondary Teacher Training Colleges: Enrolment per Subject over the Period 1974-1983 (exc. 1982)

Subject Areas	1974	1975	1976	1977	1978	1979	1980	1981	1983
Science	11	15	28	24	20	5	8	6	14
Home economics	5	9	10	12	8	-	6	4	17
Maths./Art	-	3	2	-	-	-	-	-	-
Ind./Arts	6	-	-	-	-	-	-	-	-
Spanish/Music	-	4	4	-	1	-	-	1	-
English/Spanish	3	2	7	7	4	6	3	3	4
Geography/Art	-	1	-	-	-	-	-	-	-
English/Geography	2	5	-	-	-	-	-	-	-
Art/Music	-	-	-	-	-	-	-	1	-
English/History	15	15	-	-	-	-	-	-	-
English/Maths	8	8	18	11	14	11	7	4	11
History/Maths	7	12	-	-	-	-	-	-	-
History/Georgraphy	6	10	-	-	-	-	-	-	-
Maths/Geography	5	4	-	-	-	-	-	-	-
English/Art	-	2	5	-	-	-	-	1	-
Social Studies	-	-	46	32	24	10	18	6	7
Total	**68**	**90**	**120**	**86**	**71**	**32**	**42**	**26**	**53**

Source: Secondary Teacher Training College.

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Compliance with Loan/Credit Conditions and Covenants

Loan Agreement Section			Conditions Met	Conditions with Action Pending
3.02 (a)	Employment of consultants and appointment of a Training Officer who shall be responsible for:			
	(i)	operating the Agricultural Extension, In-Service Training and Communication Centre; and		appointment of a Training Officer will take place when the Centre is completed.
	(ii)	coordinating the programmes and administration of the Rural Training Centres.		The RTC component was deleted from the Project.
3.03	To maintain the Project Unit with such powers, responsibilities, staff and resources as defined and set forth in Schedule 5 of the C.A.		x	
3.04	The Ministry of Agriculture and the Guyana School of Agriculture shall designate at least one qualified and experienced official responsible for:			
	(i)	implementing the technical aspects of the project related to the Ministry or school; and	x	
	(ii)	coordinating the operations between such Ministry of School and the Project Unit.	x	
3.05	(i)	The Curriculum Development Unit shall complete, within one year from the date of the Agreement, the curricula and syllabi, for the Community High Schools (CHS);	x (1977)	
	(ii)	to establish a new procedure for the transfer of students between the CHS and regular secondary schools, six months before the scheduled opening of the first CHS;	x (1977)	
	(iii)	to ascertain that facilities of the CHS are available, after school hours, for community training programmes;		pending till schools are operational
	(iv)	to establish procedures and a tracer system to evaluate the progress of the students of the CHS, both while in school and after graduation; and	partially	Studies carried out, but a permanent system not established.

Annex 5 (page 2 of 2)

Loan Agreement Section			Conditions Met	Conditions with Action Pending
	(v)	to select sites, for the CHS at least six months prior to the scheduled commencement of the architectural design for each such CHS.	x	
3.06	The Ministry of Education:			
	(i)	within one year from the date of the Agreement, shall develop in conjunction with the Secondary Teachers Training College, the Guyana School of Agriculture, Georgetown Technical Institute and Carnegie School of Home Economics, a cooperative programme for the training of practical-subject teachers in the agricultural, technical and home economics fields; and	partially	A training programme has been started for teachers of home economics and arts.
	(ii)	within six months from the date of this Agreement, shall furnish to the Bank for its review a programme for in-service training of existing secondary school teachers.	x	
3.07	The Borrower shall phase out the certificate-level course (grades 10-11) in Agriculture in the three-year period 1977 to 1979.		No	As many diploma holders prefer to go for higher studies, the phasing out of the certificate has been put off.
4.03	The Borrower shall, at one year in intervals after the date of this Agreement, review jointly with the Bank:			
	(i)	training of secondary school teachers including teachers of practical subjects;	partially	
	(ii)	development of the secondary education system including the CHS;	partially	
	(iii)	operations and programmes of the Rural Training Centres.		The RTC component was deleted from the Project.

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Implementation of the Technical Assistance Component

	Appraisal Estimates		Actual				
	Area	m/y	Area	Project support m/y	Other supports m/y	Period of implementation	Executing Agency
	Specialists						
a)	Education Law & Programming	1	Replaced by Social developmental study	1	-	11/76-10/77	Unesco
b)	Curricula in GTI	2	(1 m/y transferred to (e) (1 m/y transferred to (f)	None	+2(CFTC)	n.a.	CFTC
c)	Curricula in GSA	1	Replaced by agricultural eng.	1	+1(UNDP)	3/78-3/80	Unesco
d)	Extension & Training	2	Same	2	-	11/75-10/77	Government
e)	Agricultural Communication	1	+1 m/y from (b)	2	-	5/76-5/78	Unesco
	Sub-Total	**7**		**6**			
f)	Effectiveness Study	1	+1 m/y from (b)	2	+1(CFTC)	3/78-3/79	Government
	Fellowships						
Education Planning		2	same	2		1976-80	Government
Teacher Training		23	same	20.5		1976-80	Government
Technical Education		18	same	13		1976-80	Government
Agricultural Education							
	GSA	9.75	same	4.25		1976-80	Government
	Extension Training	1	same	0		1976-80	Government
	Rural Training Centres	3.5	same	3.5		1976-80	Government
Professional & Technical Training		65.0 1/	same	52		1983-84	LASPAU

Source: Mission work, based on the Supervision Reports and information from the EPIU.

Notes: 1/ Added by the Amendment.

Annex 7

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

REPAHA - Output of Graduates

Country	class 77	class 78	class 79	class 80	class 81	class 82	Total
Antigua	1	2	2	2	-	-	7
Anguilla	-	-	-	-	-	1	1
Barbados	2	2	-	1	3	1	9
Belize	2	2	1	1	1	1	8
B.V.I. (Tortola)	-	-	-	1	-	-	1
Cayman Islands (Gr.)	1	-	-	-	-	-	1
Dominica	2	1	-	2	-	1	6
Grenada	1	2	2	2	2	-	8
Guyana	5	7	3	6	9	8	38
Jamaica	6	4	5	5	6	8	34
Montserrat	1	-	-	1	-	-	2
Netherland Antilles							
- Aruba	-	1	-	1	-	-	2
- Curacao	-	3	1	-	-	-	4
- St. Maarteen	-	-	2	-	-	-	2
St. Kitts/Nevis	2	1	1	-	1	1	6
St. Lucia	2	2	2	2	-	-	8
St. Vincent	-	2	1	-	-	2	5
Surinam	3	2	3	3	-	-	11
Trinidad and Tobago	4	5	6	6	5	7	33
Total	32	36	29	33	27	30	186

Source: REPAHA.

Annex 8

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

REPAHA

Phase II - Project Objectives

1. To consolidate the results achieved in Phase I and to establish the Centre which is located in Guyana on a permanent basis as a Regional Institution for the education and training of animal health and veterinary public health assistants for the whole Caribbean region. The Centre will continue to maintain the capacity to turn out 35 animal health assistants annually.

2. To award a diploma to successful students upon the completion of the two-year training course. The diploma will be recognized by the governments of the Region as one of the qualifications for entry and/or promotion into the Civil Service system.

3. To build the necessary infrastructure into the respective Ministries of Agriculture and Health of the Government which will enable the Animal Health and Veterinary Public Health Assistants to work efficiently under the supervision of qualfied veterinarians.

4. To provide continuing and specialized training to Animal Health Assistants (AHAs) and Veterinary Public Health Assistants (VPHAs), according to the needs of each country.

5. To coordinate refresher courses for veterinarians in the Caribbean region.

6. To collaborate with international and national funding agencies to fulfill the above objectives.

Source: Report of the REPAHA/UNDP/PAHO/WHO Evaluation Mission, 10-29 May, 1982.

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Annex 9

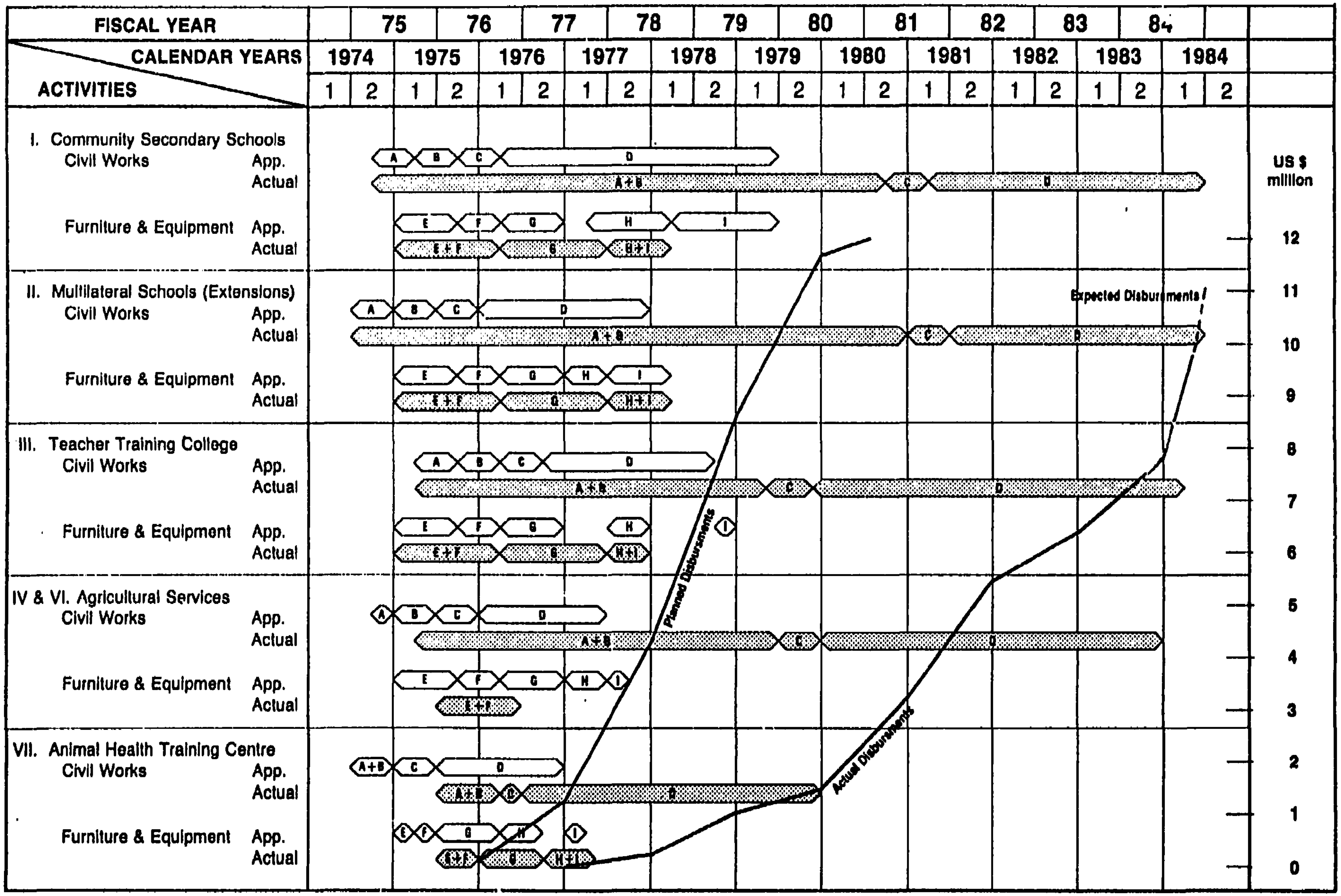
Appraisal Estimated Project Cost by Component

	G.$ (millions)			US.$ (millions)			% of
	Local	Foreign	Total	Local	Foreign	Total	Total
a) 7 Community Secondary Schools	5.6	5.5	11.1	2.8	2.8	5.6	29.6
b) 10 Multilateral Secondary Schools (Extension/Remodeling)	2.5	2.3	4.8	1.3	1.1	2.4	12.7
c) 1 Secondary Teacher Training College	0.9	0.8	1.7	0.5	0.4	0.9	4.8
d) 1 Agricultural Technician Training Institute (Extensions)	0.4	0.4	0.8	0.2	0.2	0.4	2.1
e) 1 Agricultural Extension In-Service Training and Communications Centre	0.4	0.3	0.7	0.2	0.2	0.4	2.1
f) 6 Rural Training Centres	1.4	1.6	3.0	0.7	0.7	1.4	7.4
g) 1 Regional Animal Health Technician Training Centre	0.6	0.4	1.0	0.3	0.2	0.5	2.6
h) Technical Assistance	0.1	1.2	1.3	-	0.6	0.6	3.2
i) Study and Project Administration	0.8	0.3	1.1	0.4	0.2	0.6	3.2
- Base Cost Estimates	12.7	12.8	25.5	6.4	6.4	12.8	67.7
j) Contingencies	6.2	6.0	12.2	3.1	3.0	6.1	32.3
(i) Physical (8%)	1.1	1.0	2.1	0.5	0.5	1.0	5.3
(ii) Price (37%)	5.1	5.0	10.1	2.6	2.5	5.1	27.0
TOTAL	18.9	18.8	37.7	9.5	9.4	18.9	100.0

Source: Appraisal of a Second Education Project in Guyana, 3 April 1975.

PROJECT COMPLETION REPORT - GUYANA - SECOND EDUCATION PROJECT (LOAN 1106/CREDIT 544-GUA)

Project Implementation Schedule



A: Selection and Survey of Sites
B: Preparation of Construction Building Documents
C: Tender and Contract Awarding
D: Construction
E: Preparation of Master Lists
F: Preparation of Bid Documents
G: Tender and Contract Awarding
H: Manufacturing and Reception
I: Installation

Annex 11

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Schedule of Disbursements

(US$ millions)

Year	Semester	Appraisal Estimate	Accumulated Estimate	Actual Disbursements	Actual Totals
1975	1st				
	2nd	0.1	0.1		
1976	1st	0.1	0.2		
	2nd	1.1	1.3	0.025	0.025
1977	1st	1.1	2.4	-	0.025
	2nd	1.9	4.3	0.230	0.255
1978	1st	2.1	6.4	0.227	0.482
	2nd	2.2	8.6	0.524	1.006
1979	1st	2.2	10.8	0.153	1.159
	2nd	0.9	11.7	0.324	1.483
1980	1st	0.3	12.0	0.581	2.064
	2nd			1.161	3.225
1981	1st			1.575	4.800
	2nd			0.700	5.500
1982	1st			0.400	5.900
	2nd			0.500	6.400
1983	1st			1.000	7.400
	2nd			0.400	7.800
1984	1st			1.900	9.700

Sources: - Appraisal Report.
- IBRD Computer Printouts, May 1984.

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Comparative Analysis of Appraisal and Actual Capacities and Floor Areas (in Square Feet)

App. Item No.	Project and Title Location1/	New Student Places		Academic & Communal		Boarding		Staff Housing		Gross Areas2/		Area per Student	
		App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.	Actual
Community High Schools													
C0-01	Canje	640	640	22,700	29,072	300	392	-	-	30,200	29,524	47.2	46.1
C0-04	Lodge	640	640	22,350	28,864	300	392	-	-	30,200	29,316	47.2	45.8
C0-05	Friendship	640	640	22,350	28,896	300	392	-	-	30,200	29,348	47.2	45.8
Extensions to Sec.Schools3/													
Ex-01	Skeldon B	168	168	10,460	12,387	-	-	-	-	13,950	12,387	83.0	73.7
Ex-03	Rosignol D	168	163	6,860	7,879	-	-	-	-	9,200	7,896	54.8	47.0
Ex-04	Annandale B	168	168	9,973	12,385	-	-	-	-	13,950	12,385	83.1	73.7
Ex-06	N. Georgetown A	168	168	3,600	4,368	-	-	-	-	4,800	4,368	28.6	26.0
Ex-10	St. Ignatius C	168	168	4,150	4,039	350	453	2,400	nil	5,600	5,598	47.6	33.3
Teacher Training													
TT	Turkeyen	450	450	21,250	29,688 4/	2,100	1,008	-	-	31,150	37,345	69.2	83.0
Agricultural Services													
SA-01	GSA	88	88	3,600	3,600	8,536	8,434	-	-	13,326	13,224	151.4 5/	150.3 5/
IS	AEITCC	30	30	5,880	5,880	2,800	2,800	1,950	1,973	12,570	12,593	419.0	420.0
REPAHA		72	72	10,410	10,410	6,678	6,768	1,500	1,500	24,078	24,078	334.4	334.4
Totals		3,400	3,400							219,224	218,062	64.5	64.1

Source: Appraisal and Working Papers, April 1975 and the PIU, March 1984.

Notes:
1/ Project items not listed here were deleted namely, four community high schools, five secondary school extensions and six rural training centres.
2/ Including wall thickness and circulation.
3/ Areas figures not comparables as there were four types of extensions - A, B, C and D quite different from each other.
4/ Includes a music and lecture hall of 2,434 sqare feet.
5/ Related to the additional boarding capacity of 88 places.

PROJECT COMPLETION REPORT
GUYANA - SECOND EDUCATION PROJECT
(LOAN 1106/CREDIT 544-GUA)

Comparison of Appraisal and Actual Costs by Project Item

(Costs in G$ 000s)

Project Items	No.of Student places		Area in square feet		Build.& Site development		Furniture & equipment		Professional Services		Technical Assistance1/		Project Administration		Totals		Cost per square feet		% Cost overrun
	App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.	Actual	App.2/	Actual	
I Community High Schools	4,480	1,920	211,400	88,188	8,057.7	12,669.3	2,096.9	1,726.8							10,154	14,396.1	48.03	163.3	
C0-01 Canje	640	640	30,200	29,524	1,161.6	4,341.5	298.0	582.2							1,459.6	4,923.7	48.33	166.7	
C0-04 Lodge	640	640	30,200	29,316	1,087.2	4,481.1	302.0	572.3							1,389.2	5,053.4	44.60	172.4	
C0-05 Friendship3/	640	640	30,200	29,348	1,087.2	3,846.7	302.0	572.3							1,389.2	4,419.0	44.60	150.6	
2,3,6&7 Deleted	2,560	-	120,800	-	4,721.7	-	1,194.9	-							5,916.6	-	-	-	
II A. Sec.Sch.Extensions	1,680	840	89,450	42,634	3,679.3	7,194.8	753.9	758.4							4,438.2	7,953.2	49.6	186.55	
Ex-01 Skeldon	168	168	13,950	12,387	542.4	1,522.7	159.4	348.9							701.8	1,871.6	50.3	151.0	
Ex-03 Rosignol	168	168	9,200	7,896	354.8	1,167.3	41.9	168.3							396.7	1,335.8	43.1	169.2	
Ex-04 Annandale	168	168	13,950	12,385	542.4	1,504.9	72.3	123.0							614.7	1,627.9	44.0	131.4	
Ex-06 N. Georgetown	168	168	4,800	4,368	172.8	731.1	7.3	12.2							180.1	743.3	37.5	170.2	
Ex-10 St. Ignatius	168	168	5,600	5,598	442.4	2,268.8	95.8	105.8							538.2	2,374.6	67.3	424.2	
2,3,7,8&9 Deleted	840		41,950		1,624.5	-	377.2	-							2,001.7	-	-	-	
B. Sec.Sch.Rehabilitation4/	-		n.a.	-	-	3,390.0	-	-								3,390.0	-	-	
III Teacher Training College TT Turkeyen	450	450	31,150	37,345	1,121.4	3,588.3	447.2	826.7							1,568.6	4,415.0	50.3	118.2	
IV School of Agriculture SA-01 Mon Repos	88	88	13,326	13,224	463.6	1,715.6	335.0	772.5							798.6	2,488.1	60.0	188.1	
V Agi.Ext. & Coms. Centre IS Mon Repos	30	30	12,570	12,593	500.0	1,288.2	113.7	262.4							613.7	1,550.6	48.8	123.1	
VI Rural Training Centres RT Six Locations	216	-	25,310	-	2,090.2	-	650.3	-							2,740.5	-	-	-	
VI REPAHA AH Mon Repos	72	72	24,078	24,078	850.1	1,466.8	39.7	68.8							889.8	1,535.6	36.9	63.8	
VIII Misc. & Clerk of Works						3,920.3										3,920.3			
IX Non-Project Schools							-	6,878.4								6,878.4			
Base Costs					16,764.3		4,436.7		1,938.6	-	1,366.2		1,000		25,525.8				
Contingencies in Appraisal figures					8,288.8	-	2,569.0	-	968.8		208.2		181.5		12,216.3				
Total	7,016	3,400 5/	407,284	218,062	25,053.1	35,233.3	7,005.7	11,330.0	2,927.4	4,088.5	1,574.4	4,740.0	1,181.5	1,790.0	37,742.1	57,145.9	88.6 6/	224.8 6/	153.7

Sources: Appraisal and Working Papers, April 1975 and the PIU, March 1984.

Notes:
1/ Including Effectiveness Study.
2/ Excluding contingencies.
3/ "Friendship" was "Grove" at Appraisal.
4/ Not included at Appraisal
5/ Excluding 3,300 student places of rehabilitation.
6/ Excluding Technical Assistance and Rehabilitation costs, total project costs become - Appraisal 36,167.7 and Actual 49,015.9.