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Appraisal of a Second Education Project in Guyana

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Education Projects Division
Latin America and Caribbean Regional Office

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Currency Equivalents ^{1/}

(as of March 24, 1975)

US\$1.00 = G\$ 2.16

G\$ 1.00 = US\$ 0.46

1/ G\$ floating with British pound sterling since July 1972

Measures

1 m² = 10.76 sq. ft.

1 km² = 0.38 sq. mi.

1 ha = 2.47 acres

Fiscal Year

January 1 - December 31

GUYANA

APPRAISAL OF A SECOND EDUCATION PROJECT

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Republic of Guyana

GUYANA

APPRAISAL OF A SECOND EDUCATION PROJECT

SUMMARY AND CONCLUSIONS

i. This report appraises the Bank Group's second education project in Guyana, for which a loan/credit of US\$12 million is proposed (US\$8.0 million would be a Bank loan, and US\$4.0 million an IDA credit). The project would support the priority areas of the Government's education development strategy and aims at: (i) improving the relevance of the education system to the needs of the economy and the local communities; (ii) meeting specific manpower requirements in priority sectors of the economy, particularly in the agricultural sector; and (iii) increasing the productivity of the work force and developing greater self-reliance among workers. These objectives are in conformity with the development objectives in the productive sectors of the economy and would respond to their urgent needs.

ii. These development objectives, require that the Government take appropriate action now to alleviate the shortage of qualified manpower in almost all fields. Although Guyana has a fairly literate work force, its educational attainment level drops off sharply after primary education. Those who have successfully completed secondary education account for only 14% of the working population and those who have continued beyond secondary education constitute less than 2%. A more serious problem is the shortcomings of the traditional education system itself: while its coverage of the school-age population has been extensive, the curriculum has been too academic and has not provided new entrants to the labor force with the basis for rapid skill training and relevant attitudes that are the most needed by the economy. Nor have there been adequate provisions for technical and agricultural training. Non-formal educational opportunities are minimal. Consequently, the nature of unemployment in Guyana has been, to a large extent, structural. While the economy has suffered from a high rate of unemployment, many positions have been left vacant or are occupied by unqualified workers. This phenomenon is more serious in the public sector, particularly the agricultural sector.

iii. The proposed project would help the Government to resolve some of these problems. This would be the Bank Group's second lending operation for education in Guyana. The first Bank/IDA education project (Loan 583/Credit 139-GUA, signed in 1969, for US\$5.8 million) supported the Government's efforts to improve the relevance of formal education for selected secondary-level students and to meet the need for primary school teachers by financing six multilateral secondary schools with a total of 5,500 student places and a primary teachers' training college. Construction of these schools is expected to be completed by end of May 1975. The proposed second project would assist in improving secondary education and strengthening agricultural education and training by enabling the Government to: (a) initiate a pilot program of new community secondary schools that would offer the majority of

primary school graduates a more meaningful and employment-oriented program; (b) extend the diversified curriculum, introduced in the multilateral secondary schools under the first Bank/IDA project, to existing secondary schools; (c) provide facilities for secondary teacher training to include construction of a new college; and (d) expand both formal and non-formal training opportunities for farmers, rural residents, extension workers, animal health technicians and other types of agricultural technicians. The project would also complement the activities of other multilateral and bilateral aid agencies.

iv. The proposed project would consist of:

(a) Construction, furniture and equipment for:

(1) Improvement of secondary education

- 7 new community secondary schools
- extensions to 10 existing secondary schools
- construction of a new Secondary Teachers' Training College

(2) Vocational and agricultural training

- extension of an existing agricultural school
- a new Agricultural Extension In-Service Training and Communications Center
- 6 new rural training centers
- a new Caribbean Animal Health Technicians' Training Center

(b) Provision of technical assistance, comprising 7 man-years of specialist services and 57 man-years of fellowships to support implementation and operation of the above listed project items.

(c) A study to assess the effectiveness of the vocational and technical education/training system in meeting the country's socio-economic objectives and to establish priorities for long-term investment in education and training.

The project institutions would provide a total of 7,036 student places.

v. The project would provide for establishment of seven community secondary schools, with a total of 4,500 student places, to help provide more meaningful education for the majority of primary school graduates who fail the highly competitive entrance examination for the traditional secondary schools and remain in the "tops" (grades 7-9) of primary schools.

As these students presently receive little than extended primary education and terminate their formal education without proper preparation for further training or employment, the community schools would offer during the first three years a balanced general education and during the next year (or less) short-term vocational training courses based on the occupational needs of each community. Access to the selective education system would still be available for late developers. After school hours, the community schools would also fulfill the training needs of adults and out-of-school youths, thus serving as a focal point for non-formal education in each community. The new schools would also benefit about 50 overcrowded feeder primary schools by increasing the space available for pupils in lower grades. Seven of the 12 education districts would each have a community secondary school. As the community secondary schools are forerunners of the education reform effort, the Government would establish evaluation procedures and a tracer system to follow up on the progress of students, both while in school and after graduation. The schools would be staffed by qualified teachers trained at the Secondary Teachers' Training College, now temporarily housed and to be constructed under the project.

vi. To support the Government's continuing effort to extend the introduction of the diversified multilateral school curriculum, the project would provide practical-subject teaching facilities comprising 19 workshops, 19 laboratories and 19 homecraft rooms in ten existing secondary schools. These facilities would also allow an increase of about 1,680 in enrollments and would serve a total of 6,630 students. This project item, together with the first Bank/IDA project, would enable half of all secondary students to study under the reform curriculum by 1980.

vii. To meet the rapidly growing demand for qualified secondary school teachers created by the expansion and diversification of secondary education, the project would provide for construction of a new Secondary Teachers' Training College, with the capacity to produce 150 trained teachers annually. To ensure an adequate supply of practical-subject teachers, the college would develop a cooperative program with existing teaching institutions in the agricultural, technical and home economics fields. In addition, the college would provide systematic in-service training to upgrade the quality of existing secondary school teachers.

viii. To fill the gap in the country's supply of agricultural technicians and teachers and to train them by offering a larger applied and practical course content, the project would provide for extension of the Guyana School of Agriculture, the country's only agricultural education institution at the post-secondary level. This extension would enable the school to almost double its student places, from 128 to 216, and to offer its facilities for use by the proposed Caribbean regional center for the training of animal health technicians and by the adjoining Agricultural Extension In-Service Training Center, both of which would be supported under the project. About 105 technicians would graduate annually from this school, about half of whom could be absorbed by the extension service and the rest by other governmental agencies and the private sector.

ix. To initiate a systematic program for in-service training of extension and other agricultural personnel, the project would provide for the establishment of an Agricultural Extension In-Service Training and Communications Center within the Ministry of Agriculture. Provided with 26 boarding places, a lecture room and demonstration farms, the Center would train annually about 400 officers in short courses of one or two weeks' duration. The courses would place emphasis on the extension techniques and advanced agricultural technology required for implementing the Government's strategy to diversify and specialize agricultural production.

x. To help increase agricultural productivity and improve rural living conditions, the project would provide for the construction and equipping of six rural training centers. These centers would offer a variety of short courses (1-2 weeks) in such fields as commercial farming, organization of cooperatives, rural construction, nutrition, home economics and child care for both practicing and prospective farmers and for rural women. In addition, the centers would serve senior students of the School of Agriculture for their field training and would become focal points for meetings and exchange of information on all aspects of development activity in the region. Two of the centers would have additional equipment for clearing and cultivating forests to help farmers open up new arable land. The centers would be located near the areas where large agricultural projects are being developed. Each center would have, besides boarding facilities and a classroom for 36 trainees, a demonstration farm and either a workshop or home economics laboratory, and would serve about 8,100 rural people per year. The District Extension Office would operate the centers.

xi. To support the expanding livestock industry as part of economic diversification and to overcome the acute shortage of qualified veterinarians in the Caribbean countries in the most efficient way, the project would provide for establishment of a Caribbean Animal Health Technicians' Training Center, staffed by qualified veterinarians in the region. By virtue of its regional nature, the Center would take advantage of economies of scale in meeting the regional requirements for veterinarians. By training technicians instead of qualified veterinarians, the Center would meet the requirements for veterinarian services at a lower cost while enabling each country to more effectively utilize the limited number of qualified veterinarians. The Center would be located adjacent to the Guyana School of Agriculture in order to benefit from the latter's basic science courses and the existing amenities such as the library and food service. While only the Government of Guyana, as the major beneficiary of the Center, would be responsible for financing its physical facilities, the other participating Caribbean countries have agreed to share the operating costs.

xii. To help implement the above-described project components, the project would include 7 man-years of specialist services and 57 man-years of fellowships for training abroad. The specialists would assist the Government in (i) drawing up a new education law and programming educational reform measures; (ii) developing curricula for the technical and agricultural

institutes and strengthening their liaison with employers; and (iii) operating the rural training centers and the Agricultural Extension In-Service Training and Communications Center. The fellowships would upgrade the quality of supervisory and training staff for practical subjects in the project institutions.

xiii. The total project cost is estimated at US\$18.9 million, with a foreign exchange component of US\$9.4 million, or 50% of the total cost. The proposed loan/credit of US\$12 million would be equivalent to 64% of the total cost and would cover the foreign exchange component and 27% (US\$2.6 million) of the local currency costs. Prices as of December 1974 were used to estimate the base costs, to which a contingency allowance of 48% has been added.

xiv. The Project Unit responsible for implementing the first education project would continue to serve as the implementing agency for the proposed second project. Other Government agencies involved in the project, i.e., the Ministry of Agriculture and the Guyana School of Agriculture, would designate senior officers who would be responsible for maintaining liaison with the Project Unit. The Unit would be strengthened to deal with the more diversified project.

xv. Contracts for civil works would be awarded on the basis of competitive bidding advertised locally and in accordance with local procedures, which are satisfactory to the Bank/IDA. Since most of the civil works are of small size, scattered throughout the country, foreign contractors are not expected to be interested; but they would not be precluded from bidding. Contracts for procurement of furniture and equipment would be awarded on the basis of international competitive bidding in accordance with Bank/IDA guidelines. However, furniture and equipment that cannot be grouped in packages of at least US\$5,000 would be procured on the basis of competitive bidding advertised locally and in accordance with Borrower's regular procurement procedures; this would not, in aggregate, exceed US\$215,000 equivalent or 10% of the total cost of furniture and equipment. Since Guyana is a member of the Caribbean Common Market (CARICOM), domestic and other member countries' manufacturers would receive a preferential margin in bid evaluation in accordance with Bank/IDA procedures.

xvi. The proposed loan/credit would be disbursed over a four-year period. A small amount of up to US\$300,000 would be disbursed retroactively to cover expenditures incurred after July 1, 1974 for professional services, technical assistance and project administration required to implement the project.

xvii. The project constitutes a suitable basis for blend financing consisting of an IDA credit of US\$4 million equivalent on standard terms and a Bank loan of US\$8 million to the Government of Guyana with a repayment period of 30 years, including a 10-year grace period.

GUYANA

APPRAISAL OF A SECOND EDUCATION PROJECT

I. INTRODUCTION

1.01 The proposed project, estimated to cost US\$18.9 million, is designed to support the priority areas of Guyana's education development strategy. The proposed loan/credit of US\$12 million (US\$8.0 million would be a Bank loan, and US\$4.0 million an IDA credit) would cover the foreign exchange component, estimated at US\$9.4 million, and part of the local currency costs.

1.02 This would be the Bank Group's second lending operation for education in Guyana. In 1969, the Bank Group lent the Government US\$5.8 million (Loan 583/Credit 139-GUA) for the expansion and reorientation of secondary education and primary school teacher training. After some initial delays in appointing consultant architects and in awarding civil works contracts, the project is now being implemented satisfactorily and is expected to be completed by end of May 1975. The new teacher training college was occupied early 1974, and one multilateral school in September 1974. Two more multilateral schools are to be completed by end of 1974.

1.03 The possibility of further Bank Group assistance to education was discussed with Government authorities in September 1973. The discussion was based on the UNESCO project identification mission report of January 1973. In February 1974, the Government submitted a formal request for Bank Group financing, together with a Ten-Year Plan for secondary education development. The project was prepared in May 1974 by the Government with UNESCO's assistance, and was appraised in May/June 1974 by a Bank mission composed of Messrs. K.W. Lee (economist), E.M. Vergara (architect), B.S. Braithwaite (general educator, consultant), G.F. Gayle (agricultural educator, consultant), and J.S. McNown (technical educator, consultant).

1.04 During appraisal the project was modified to keep its size within the manageable limits of the Government's financial and administrative capacity and to gain experience from some pilot project items. These modifications include the deletion of: (a) three proposed community secondary schools and extensions to three secondary schools; (b) the proposed replacement of the Georgetown Technical Institute; and (c) the proposed Caribbean Para-Medical Training Center, since the Government had requested financing from another external agency (CIDA). However, one more rural training center was added in an area where major agricultural projects are being developed.

II. SOCIO-ECONOMIC BACKGROUND AND DEVELOPMENT POLICIES

The Land, the People and the Economy

2.01 Although Guyana occupies more than 80% of the Caribbean land, much of the country's interior is unexploited. About 90% of its population (754,000 in 1974) is concentrated along a narrow coastal strip which constitutes only 4% of the total area. The population growth rate, net of migration, in the last decade was moderate at 2.3% p.a., but the age group with the largest growth was the 0-14 group, accounting for half of the total population growth. Hence, it is expected that in this decade the secondary school-age population and new entrants to the labor force will increase considerably. This has significant implications for both employment and educational opportunities: the economy will have to generate more employment opportunities to keep pace with the rapidly increasing labor force, and the education system will have to serve more people and improve its relevance to the needs of the economy.

2.02 Despite the modern mining sector and relatively efficient sugar industry, economic growth in Guyana has been uneven. While during the period 1965-70 the real growth rate of the economy was about 4% p.a., in the last three or four years it has barely kept pace with the population increase. The agriculture sector's performance has been particularly weak, with the sector's importance declining from 26% of GDP in 1960 to 20% at present; so far, no integrated effort has been made to improve productivity in the sector. The manufacturing sector is still relatively unimportant, accounting for only 12% of GDP and 15% of the labor force. The two major sources of growth, the capital-intensive mining sector and the sugar industry, have substantially contributed to the balance of payments and to economic growth, but have not provided a corresponding increase in employment. As a consequence, the economy has not been able to absorb the growing labor force, and unemployment has remained at about 15%.

The Development Strategy

2.03 The Government's development strategy, defined in the Second Development Plan (1972-76), focuses on the directly productive sectors of the economy and diversification of the economic structure to achieve the goal of self-reliance in feeding, housing and clothing the nation. In addition to revitalizing the traditional agricultural sector, the Government is paying particular attention to the development of non-traditional agriculture, forestry and fishing. The Government also proposed to double the manufacturing output and create about 5,400 new jobs during the Plan period by intensifying its effort to develop both resource-based and assembly-type industries. It is implementing these strategies by adopting a cooperative form of economic organization and active participation of the public sector.

2.04 In agriculture, public policies will continue to emphasize bringing new areas along the coastal belt under cultivation and using land more intensively to lessen unemployment and rural poverty. This policy will require

that the agricultural extension services more effectively encourage farmers to adopt techniques which are more labor intensive and produce greater yields. In recent years the Government has launched an effort to increase food production and exports by developing large tracts of virgin forest and arable land in the interior. Because of the completely different ecology and relatively high initial capital requirements, this line of development requires extensive technical services and training as well as experimentation and research.

The Need for Human Resource Development

2.05 Implementation of these development strategies requires that the Government take appropriate action now to alleviate the shortage of qualified manpower in almost all fields. Although Guyana has a fairly literate work force, its educational attainment level drops off sharply after primary education. Those who have successfully completed secondary education account for only 14% of the working population and those who have continued beyond secondary education constitute less than 2%. A more serious problem stems from the shortcomings of the traditional education system itself. While its coverage of the school-age population has been extensive, its curriculum, particularly at the secondary level, has until recently been too academic and has not provided new entrants to the labor force with the basis for rapid skill training and attitudes that are most needed in the economy. Nor have there been adequate provisions for technical and agricultural training. Non-formal educational opportunities have been minimal. As a result, the nature of unemployment in Guyana has been, to a large extent, structural. While the economy has been suffering from a high rate of unemployment, many positions have been left vacant or are occupied by unqualified workers. In the public sector alone, about 14% of the authorized positions remain vacant. The fact that the Government sector accounts for 22% of total employment provides strong grounds for believing that this skill shortage probably prevails in every field. But this phenomenon is more serious in the public sector, particularly in the administration of agriculture. A recent Government study financed by USAID indicates that in order to fill the existing manpower gap and meet the growing demand annually, about 65 agricultural officers and assistants must be appointed and about 400 already in service be upgraded over the next five years.

2.06 This problem of skill shortages has been accentuated by heavy out-migration, which has been heavily concentrated among the young and best-trained individuals such as professionals and technicians. At the professional level alone, about 7% left the country in 1970. Thus, imbalances have developed in the occupational structure and this in turn has impeded the expansion of employment. To meet the problem, the Government has decided on the one hand to launch a program for attracting qualified Guyanese from abroad, and on the other hand to expand both formal and non-formal vocational training. Because of the seriousness of the situation, however, the Government should undertake a study that would assess the effectiveness of the education and training programs in meeting the country's manpower requirements, determine the social rates of return on its investment in these programs, identify long-term investment priorities, and propose whatever measures may be deemed necessary to remedy the situation (paras. 3.09, 3.20 and 5.22).

III. THE EDUCATION SECTOR: NEEDS AND STRATEGY

The Formal Education System

3.01 The formal education system (Chart I) comprises: (a) six years of primary education, extended for three more years ("tops" of primary) in most of the schools; (b) five years of secondary education; and (c) two to five years of post-secondary or higher level education. Admission to secondary education is by competitive examination. The Ministry of Education has the major responsibility for formulating policy and administering all formal public educational institutions except the two autonomous institutions, the University of Guyana and the Guyana School of Agriculture. The education laws, which date from 1940, have become obsolete. Guidelines and regulations for the conduct of schools and teachers are lacking. Most of the non-formal education and training activities are under the control of other ministries.

Primary and Secondary Education

3.02 Basic data (as of 1973) on primary and public secondary schools are shown below. The enrollment figures include over-age pupils. Of 390 primary schools, 227 are owned by denominational organizations, but the Government finances their full operating costs. Private secondary education, much of it owned by religious organizations, is totally uncontrolled by the Government, and the Ministry of Education has no accurate data even on the number of private schools and their enrollments.

	<u>Age Group</u>	<u>Enrollment</u>	<u>Enrollment Rate</u>	<u>Teaching Staff</u>	<u>% of Qualified Staff</u>	<u>Pupil/Teacher Ratio</u>
Primary						
(Grades 1-6)	6-11	131,580	92	3,979	42	33:1
"Tops" of Primary						
(Grades 7-9)	12-14	38,359	61	1,804	44	21:1
Secondary						
(Grades 7-11)	12-16	24,237	24	1,020	62	24:1

3.03 Since 1963 the Government has undertaken a series of educational reform measures, with the objective of providing all Guyanese with an equal opportunity to acquire the knowledge and skills necessary for their individual progress and for the country's economic development. To achieve this objective, the Government has directed its efforts mainly toward meeting the urgent need for places for the rapidly increasing school-age population, particularly at the secondary level. As a result, virtually all primary school-age children are enrolled and about 53% of the population between ages 12 and 18 receive some form of secondary education including the primary "tops"--a high percentage when compared with that in other countries (Annex 1).

3.04 This increase in enrollments, however, was undertaken without comprehensive programming. Consequently, adequate attention could not be given to improving the quality of education, staffing the schools appropriately, and providing functionally equipped places. Due in part to the lack of facilities and in part to Guyana's tradition of elitist education, only about 10% of the primary school graduates pass the examination for entrance to the traditional secondary schools (grades 7-11), which provide only academic courses and are higher education-oriented. The 90% who fail the examination remain in the "tops" (grades 7-9) of the primary schools. There they often have to share overcrowded classrooms with younger children and have less qualified teachers and much worse equipment than the students in the regular secondary schools. Although they are considered part of the secondary education system, the students in the "tops" program receive only remedial or extended primary education, which does little to prepare them for further study or employment.

3.05 Of the 390 primary schools in Guyana, 373 still have the "tops" program and well over half of the teachers are inadequately trained by Government standards. Despite the examinations (Preliminary Certificate and College of Preceptors Examinations) to transfer students to the regular secondary schools, about 75% (38,400) of those in grades 7-9 remain in the "tops" of primary schools because of the limited number of places (12,800) in the secondary schools. The fact that the "tops" courses are geared to these external examinations hampers the introduction of a coherent program with clearly defined objectives that serve the students' socio-economic needs. It is highly important to have such a program: the students attending the "tops" courses come mostly from underprivileged families; they failed to gain entry into government secondary schools and cannot afford the fees in non-governmental schools, hence their formal education is terminated at this level.

Teacher Training

3.06 Primary teacher training consists of a post-secondary course of two years' duration, provided in a newly completed building financed under the first Bank/IDA education project. Although the college will double its annual output to 330 teachers, it will not be able to satisfy the demand for primary teachers unless the Government increases the supply of trained secondary school teachers.

3.07 Trained primary teachers are being drained into the expanding secondary education system, which has a serious shortage of trained teachers. The annual output of about 30 teachers from the Secondary Teachers' Training College far from satisfies the requirements, amounting to about 150 teachers per year (Annex 4). A major constraint to training an adequate number of secondary teachers is the lack of proper facilities. The college is temporarily housed in an old building which is uneconomical and unsuitable for expansion or remodeling. There is no institution that provides systematic training for the teaching of practical subjects such as science, agriculture, industrial arts and home economics. An obstacle to improving the quality of secondary education is the high proportion of untrained teaching staff.

Vocational and Technical Education

3.08 Although there are several formal vocational and technical training institutions in Guyana, the Georgetown Technical Institute (GTI) dominates the training of technicians and craftsmen. It produces 85% of the technicians who receive diplomas in Guyana each year. The only other program for technicians currently offered is at the University of Guyana, which trains about 10 per year. The New Amsterdam Technical Institute, recently established with CIDA assistance, will begin a small technician training program in 1974, producing 20 technicians per year. GTI also has the major role in producing craftsmen and upgrading the skills of employed workers. Each year, 150-200 students obtain craftsman certificates from GTI and a comparable number complete part-time courses.

3.09 GTI's present courses are geared to the London City and Guilds Institute's syllabi and examinations, which are not always well matched with Guyana's requirements. Some of the shortcomings in the courses also result from the lack of close liaison with employers. The present buildings and most of GTI's equipment need to be replaced. Furthermore, the total available space is inadequate to house the existing and additional courses which are important to the country's development; for example, GTI is now unable to offer courses to train technical teachers for industrial arts courses in secondary schools or to meet the demand for block-release courses for upgrading training. All these problems, together with the heavy emigration of these students who receive technical certificates at one level or another, make it necessary for the Government to undertake an in-depth study of vocational and technical education in Guyana (paras. 2.06, 3.20 and 5.22).

Agricultural Education

3.10 Agricultural education is included in the curricula of a large number of primary and secondary schools. At the post-secondary level, agricultural training is offered to about 120 students at the Guyana School of Agriculture (GSA). The school lacks adequate staff, boarding places, workshops and dairy sheds to train the agricultural personnel required at the sub-professional level. The curriculum is somewhat too academic in its application, lacks balance and the practical orientation necessary to meet the needs of the agricultural sector. The school presently offers certificate-level (grades 10-11) and diploma-level (grades 12-13) courses.

3.11 The need for agricultural professionals is likewise not satisfied. No university-level education in agriculture is available in Guyana, and although scholarships and loan funds have been set up to enable Guyanese to study at overseas universities, few training places have been available to them in some of the specialized fields such as veterinary science. Moreover, only a few of the trainees have returned to Guyana, and the salary levels for professionals often are too low to keep them in the country long enough to satisfy national needs. In the Ministry of Agriculture there are only six veterinarians to cover the whole country. Important as such specialists are in the development of a country's economy, the manpower requirements in these specialized fields arise on so small a scale that in the Caribbean region no

one country can afford to build and operate a training center to satisfy only its own requirements.

Non-formal Education and Training

3.12 Although Guyana has several non-formal education and training programs for training skilled workers, technicians, supervisors, managers and farmers, thus far these programs have had little impact on the economy. In the fields of industrial training there is no consistency and coordination between the formal and non-formal education and training programs. Two technical institutes operate part-time courses, combined with evening attendance, for about 220 trainees at the technician level and a little more than 1,000 at the craftsman level. These courses do not add a significant number of new workers to the labor force because over 80% of them are already employed; nonetheless, they represent a considerable contribution to the upgrading of skills within a labor force often found to be seriously under-qualified. Under the control of the Ministry of Labor, small-scale apprenticeship schemes are under way in many small firms, with an intake of about 200 per year. Two major industries, sugar and alumina/bauxite, conduct on-the-job training programs. The Government's Industrial Training Center, established with USAID assistance, represents a significant departure from traditional technical education; however, its limited program, with an annual output of 100-150, has less impact on employment and the economy than the other programs.

3.13 There is no organized provision for the training of farmers or for the upgrading of agricultural extension agents. Programs are under way to motivate and organize farmers and workers for cooperatives and to train leaders and managers of these cooperatives. One agricultural institute was established in 1973 to train 25 prospective young farmers per year as a pre-requisite to land allocation, but so far it has had little impact and offers little scope for the training of practicing farmers. The extension service is understaffed, with inadequately trained agents, and is not able to perform effectively. Its communications unit, which is responsible for producing extension materials and operating radio programs, lacks the necessary facilities and equipment to do its work properly.

Education Development Strategy

3.14 The Government's education development strategy emphasizes the fostering of attitudes relevant to the national goal of self-sufficiency in feeding, clothing and housing the nation, and the orientation of education and training toward providing a basis for practical and versatile skills beyond traditional academic attainments. Self-reliance and self-employment are important aspects of education objectives. These objectives direct the content of education not only to offer specific practical or vocational training programs, but also to broaden the curriculum of general education, whether it be at the basic or secondary level. These approaches in turn lead to redefinition of teacher training programs, to review of school/community relationships and appropriateness of physical facilities, and to reconsideration of the structure of the formal education system. This strategy conforms to the national policy for economic development (para. 2.03).

3.15 The Government's initial program in this direction was the establishment of multilateral secondary schools, supported by the first Bank/IDA education project in 1969. Since then the Government has pursued more active programs aimed at improving efficiency at the primary level and providing more meaningful learning opportunities to the majority of secondary level students who remain in the "tops" of primary schools. The Government now plans to establish community secondary schools to offer these students a program which will be more socially and vocationally oriented; it will prepare them for undertaking further training or work, while introducing new procedures for allowing late developers to transfer into the regular secondary multilateral system. These community secondary schools will also serve the needs of adults and out-of-school youths after school hours, thus becoming the focal point for non-formal education and training in each community. The Government's plan envisages the establishment of 63 such community secondary schools for about 37,000 students, to replace all the "tops" of primary schools during the next ten years. The Government intends to implement the plan in two five-year phases. In the first phase, 30 community secondary schools will be established to accommodate some 17,400 students, leaving only about 40% of secondary-level students in the "tops" of primary schools, compared with the present 75%. In the second phase the remaining 33 schools will be established.

3.16 In its education development strategy, the Government also intends to extend the diversified curriculum of the multilateral schools to the existing secondary schools by providing practical-subject teaching facilities such as workshops, laboratories and homecraft rooms. Thus the ultimate objective is to have only two types of secondary schools--multilateral and community--with a built-in system of transfer between them (Chart I). By 1981, according to the Government's plan, about one-third of the 50 secondary schools (Government and Government-aided) will operate as multilateral-type schools. Implementation of this plan, together with the community secondary school program, will generate a substantial increase in the demand for trained secondary teachers, both for academic and technical subjects and for supervisory staff (Annex 4). The Government plans to meet this demand by constructing new premises for the Secondary Teachers' Training College and by conducting a program for the training of technical subject teachers in cooperation with other teaching institutions specializing in the fields of agriculture, technology and home economics. To ensure full implementation of the concept of new curricula for the community and multilateral schools, the Government intends to appoint some supervisory staff in the Secondary Teachers' Training College so that they can both teach and supervise.

3.17 As a corollary to the emphasis now being given to development of the agricultural sector, the Government plans to strengthen agricultural education and training in order to (i) alleviate the shortage of agricultural professionals and technicians; (ii) provide the rural population with systematic education/training aimed at the organization of cooperatives, motivation for achieving self-reliance, and improvement of productivity; and (iii) introduce a scientific method of imparting better knowledge of agricultural technology.

3.18 To this end, the Government intends to expand and improve the facilities of the Guyana School of Agriculture (para. 3.10), the country's only agricultural education institution at the post-secondary level, and to improve the quality of its teaching staff and the relevance of the curricula. The Government also plans to phase out the certificate-level course (grades 10-11) in view of its policy to establish rural training centers (para. 5.15), which would train young farmers at a lower cost, and because of the lack of demand for such graduates in the organized sector. To meet manpower requirements in specialized fields, the Government plans to collaborate with other Caribbean countries in establishing regional training centers. A first step in this collaboration was taken recently with the launching of a program for training animal health technicians (paras. 5.18-5.20).

3.19 As agricultural development is highly dependent on the effectiveness of extension services, the Government plans to strengthen the activities of the Agricultural Communications Unit of the Ministry of Agriculture and to establish a program for systematic in-service training of extension and other agricultural personnel. To increase agricultural productivity and improve rural living conditions, the Government also intends to establish some pilot rural training centers, with the first ones located in areas where major agricultural development projects are being launched.

3.20 In the field of vocational and technical education, the Government's strategy is to review the effectiveness of all the existing programs, their relationship to employment markets and the social rates of return on investment in vocational and technical education, before making any further significant investment (paras. 2.06, 3.09 and 5.22). To this end, the Government established a tripartite advisory council, consisting of representatives from the Government, employers and workers, for vocational and technical education under the Minister of Education. The Bank would also assist in the assessment of the effectiveness of vocational and technical education (para. 5.22).

3.21 In general, the Government's education development strategy appears to be consistent with national socio-economic policies as explicitly stated or implicit in the Second Development Plan (para. 2.03). The targets and timing of some aspects of the strategy, however, appear too ambitious and are not readily reconcilable with the intended sectoral distribution of resources. In particular, the planned programs for establishing community secondary schools and more multilateral-type schools have not been tested against constraints to the supply of qualified teachers and to social institutions, nor have the financial constraints (paras. 4.02-4.03) been fully taken into account. The rate of expansion of the rural training centers as well as of the community secondary schools needs to be decided on the basis of an evaluation of the experience gained during the initial phase (para. 5.07). Furthermore, expansion of the Georgetown Technical Institute at this stage appears to be inconsistent with the Government's declared policy to review the effectiveness of vocational and technical education before making any significant investment in this field (paras 1.04 and 3.20).

Policies and programs for training manpower needed in the directly productive sectors such as agriculture and livestock warrant priority and should be supported.

IV. EDUCATION FINANCE

4.01 Guyana bears a high level of education expenditure. Although the share of education in Government expenditure remained low at 14-15% during the past five years (Annexes 5 and 6), its share in the GDP reached 5.8% in 1974. On a per capita basis, Government education expenditures (in 1974 prices) rose from US\$21 in 1969 to as high as US\$35 in 1974 (Annex 1). The fact that the proportion of education expenditure in GDP is high, while the proportion in Government expenditure appears low, is attributable in part to the sluggish growth in GDP and in part to the importance of the Government sector in Guyana. That sector accounts for as much as 40% of GDP and public education is free from primary through secondary level (grade 11). The Central Government, through the Ministry of Education, has the major responsibility for financing public education, which is the largest single element in its recurrent expenditure. Virtually all school-age children are enrolled at the primary level and dropout rates are low even at the secondary level. Expenditures for both of these levels account for more than 80% of Government recurrent expenditure on education.

4.02 With the priority development programs in the directly productive sectors having large claims on Government resources, the education sector's share of Government capital expenditure, as in the past, is not likely to exceed 10%. This means that during the next five years a maximum of only US\$8.5 million would be allocated each year to investment in the education sector. Even on the assumption that each year the Government will be able to accommodate about 1,000 students in the "tops" program by converting some primary schools, the first-phase targets of the ten-year plan for the community secondary schools alone (para. 3.15) would cost about US\$3.1 million per year (Annex 3). This would leave only about US\$5.4 million per year, which is insufficient to cover investment in the remaining education and training programs (Annex 6 and para. 3.15). For instance, if half of the existing secondary schools were to be converted into the multilateral type by 1981, this alone would require a capital contribution of about US\$3 million each year. The Government would therefore have to reassess its timetable for implementing the education development program, particularly for the reform of secondary education, even though it has high priority in the Government's investment program. These constraints have been taken into consideration in the appraisal of the project. The project would require on the average an investment of about US\$5 million annually, which would be within the manageable limits of the Government's financial capacity while leaving reasonable capacity for other priority programs.

4.03 As the Government's strategy for developing education and training emphasizes mainly improvement of the quality of education and technician training in the industrial and agricultural fields, the recurrent expenditures

per student are bound to increase: the community school program alone would increase the unit recurrent cost by about 62% over the present cost for the "tops" of primary schools. However, since the education development strategy also has built-in efficiency factors -- such as a more economical class size, a reasonable student/teacher ratio and heavy use of nonformal training schemes -- the overall increase in recurrent expenditure would be kept lower than otherwise. Therefore, in 1981 when most of the project institutions should be fully operational, the recurrent expenditure on education would account for about 18.3% of the Government's total recurrent expenditure, which is a moderate increase compared with the present ratio of 16.5% (Annex 5). Although the proposed project would generate annual recurrent expenses of about US\$2.7 million, which would be about 8% of the projected total recurrent expenditure on education in 1981, the net additional expenditure generated by the project would be about 20% lower, since many of the institutions included in the project are existing ones. The project's recurrent cost, therefore, would not constitute an undue burden on the Government's financial capacity.

4.04 Thus, by 1981 the implementation of the Government's education development strategy would require education expenditure (in constant prices) to grow by about 4% per year. However, the education sector's share in the GDP would decline slightly, from the present 5.8% to 5.2%, since the GDP is expected to grow faster than in the past.

V. THE PROJECT

Project Strategy

5.01 The proposed project is designed to support the priority areas of the Government's education development strategy, and aims at (i) improving efficiency and the relevance of the education system to the needs of the economy and the local communities; (ii) meeting specific manpower requirements in priority sectors of the economy, particularly the agricultural sector, to support the economic development strategy and enhance the absorptive capacity of productive sectors; and (iii) increasing the productivity of the work force and developing greater self-reliance among workers. The project would assist in improving secondary education and strengthening agricultural education and training by enabling the Government to (a) initiate a pilot program of new community secondary schools that would offer the majority of primary school graduates a more meaningful and employment-oriented program; (b) extend the diversified curriculum introduced in the multilateral secondary schools under the first Bank/IDA project; (c) provide facilities for secondary teacher training, to include construction of a new college; and (d) expand both formal and non-formal training opportunities for farmers, rural residents, extension workers, animal health technicians and other types of agricultural technicians. The project would also complement the activities of other multilateral and bilateral aid agencies (paras. 5.09 and 5.18).

Project Content

5.02 The project would consist of:

- (i) Construction, furnishing and equipping of educational institutions as outlined in the following table:

<u>Type of Institution</u>	<u>Number</u>		<u>Student Places</u>		<u>Boarding Places</u>	<u>Staff Housing</u>
	<u>New</u>	<u>Extension</u>	<u>Addi- tional</u>	<u>Replace- ment</u>		
Community Secondary Schools	7	-	-	4,500	-	-
Multilateral Secondary Schools	-	10	1,680	-	-	4
Secondary Teachers' Training College	1	-	380	70	-	-
Agricultural Technician Training Institute	-	1	88	-	88	-
In-Service and Communications Center	1	-	30	-	26	2
Rural Training Centers	6	-	216	-	152	10
Regional Animal Health Training Center	<u>1</u>	<u>-</u>	<u>72</u>	<u>-</u>	<u>72</u>	<u>1</u>
TOTAL	16	11	2,466	4,570	338	17

- (ii) Provision of technical assistance comprising 7 man-years of specialist services and 57 man-years of fellowships to support implementation and operation of the above project items;
- (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.

Elements of the Project

5.03 A Pilot Program of Community Secondary Schools. The project would assist in establishing seven pilot community secondary schools, with a total of about 4,500 student places, to help provide more meaningful education for a large number of secondary-level students who are presently in the "tops" (grades 7-9) of primary schools (paras. 3.05 and 3.15). These schools would offer during the first three years a balanced general education including practical subjects, that would comprise 30% of the curriculum, and during the next year (or less) short-term vocational training courses in one or two selected skill trades based on the occupational needs of each community. These schools, each with about 640 student places, would have practical-subject teaching facilities such as workshops, laboratories and homecraft rooms.

5.04 These seven pilot community secondary schools would replace the "tops" of about 25 out of the 373 primary schools which have such "tops," eventually producing about 1,000 graduates annually. Establishment of these new schools over the long term will also enable the primary schools to improve their quality and efficiency by alleviating the existing unhealthy and overcrowded conditions. These pilot schools would be centrally located in relation to feeder primary schools. Because of their pilot nature, the community schools included in the proposed project would be located in communities with three distinctive socio-economic backgrounds (interior, rural and urban), so as to serve as the basis for evaluation and future development of this type of schooling in other communities. Seven of the 12 educational districts in the country would have one such school (see Map). The additional teaching staff required in these schools would be supplied by the Teachers' Training College to be constructed under the project.

5.05 The detailed curriculum for the first three years of the community secondary schools is already being developed and is under experimentation. Work on the vocational courses is expected to start as soon as this curriculum development work is completed. However, assurances were obtained from the Government that this work would be completed for review with the Bank/IDA within one year from the date of signing of the Loan/Credit Agreements. To allow late developers in the community schools to transfer to the regular secondary schools, a new procedure would be developed and would replace the Preliminary Certificate and College of Preceptors Examinations, which have had an adverse effect on the development of sound education programs (para. 3.05). Transfer would be allowed only once, at the end of the third year, up to which core courses would be common to both the community and the multi-lateral secondary schools. Assurances were obtained from the Government that the administrative and legal arrangements for the establishment of this transfer procedure would be completed six months before the scheduled opening of the first pilot community school.

5.06 These community schools would also serve the training needs of adults and out-of-school youths after school hours, thus becoming each community's focal point for non-formal education and training. Use of the facilities for such training programs would be planned by the local government, assisted by the field staff of the Ministry of Cooperative Development and of the Adult Education Association, who work in cooperation with the Ministry of Education. Assurances were obtained from the Government that it would make available the school facilities after school hours for community training programs.

5.07 As the community secondary schools are forerunners of the education reform efforts and have a far-reaching impact on the rest of the education system, their operation will have to be monitored and evaluated on a continuing basis. Assurances were therefore obtained from the Government that it would establish evaluation procedures and a tracer system to follow up on the progress of students of the pilot community secondary schools, both while in school and after graduation.

5.08 Multilateral Secondary Schools. To extend the introduction of the diversified multilateral school curriculum into existing academic secondary schools (para. 3.16), the project would assist in the conversion of and extension of such curriculum to ten existing secondary schools by providing practical-subject teaching facilities comprising 19 workshops, 19 laboratories and 19 homecraft rooms. These facilities would also allow an increase of about 1,680 in enrollments and would serve a total enrollment of 6,630 students, which is about one-fourth of total enrollment of secondary schools.

5.09 The schools which would have these extensions were selected with a view to keeping a balance among ethnic groups and with the locations of the six new multilateral schools financed under the first Bank/IDA project. Two of the schools would be located in Amerindian settlements in the interior; hence, four staff houses would be provided. Some workshops and laboratories in five of the schools would house equipment recently provided by CIDA (US\$275,000).

5.10 Secondary Teachers' Training College. The project would provide for construction of a new Secondary Teachers' Training College (grades 12-14), with a capacity of 450 places to produce 150 trained teachers annually (para. 3.07). Together with the annual output of 20 - 30 university graduates, this would ensure an adequate supply of secondary school teachers for Guyana's needs. For the training of an adequate number of practical-subject teachers, the college would develop a cooperative program with existing institutions in the fields of agriculture, technology and home economics. To facilitate this close cooperation, the college would be sited at Turkeyen adjacent to these institutions and to the Primary Teachers' College and the University of Guyana. However, assurances were obtained from the Government that it would ensure that the Secondary Teachers' Training College launches a cooperative program with the Guyana School of Agriculture (GSA), Georgetown Technical Institute (GTI), and Carnegie School of Home Economics (CSHE) within one year from the signing of the Loan/Credit Agreements, so that the practical-subject teacher trainees will be offered pedagogic instruction in the Secondary Teachers' Training College and specialized subjects training in the respective training institutions.

5.11 In addition to the three-year pre-service training courses, the college would also provide systematic in-service training, of varying duration, to upgrade the quality of existing secondary school teachers. Assurances were obtained from the Government that it would complete the preparation of a revised and comprehensive program for in-service training for review with the Bank/IDA within six months from the signing of the Loan/Credit Agreements.

5.12 Agricultural Technicians' Training Institute. The project would provide for expansion and improvement of the facilities of the Guyana School of Agriculture (para. 3.18). This expansion would enable the school to almost double its capacity (from 128 to 216 student places) to fill the gap in the country's supply of agricultural technicians and teachers and to train them by offering a larger applied and practical course content. The school

would also offer courses in basic science and animal husbandry for the proposed Caribbean Animal Health Technicians' Training Center (para. 5.18). The institute would produce about 105 technicians annually, about half of whom would be absorbed by the extension service and the rest by other governmental agencies and the private sector. Assurances were obtained from the Government that it would phase out the certificate-level course with the establishment of the rural training centers included in the proposed project.

5.13 Agricultural Extension In-Service Training and Communications Center. The project would provide for establishment of an In-Service Training and Communications Center in the Ministry of Agriculture (paras. 3.13 and 3.19). The Center would train annually about 400 agricultural officers in short courses of one or two weeks' duration, which would emphasize extension techniques and advanced agricultural technology required for implementation of the Government's strategy to diversify and specialize agricultural production. The Center would also absorb the existing Agricultural Communications Unit, expanding the Unit's work area, equipment and other facilities to enable it to do its job more effectively. To take advantage of the existing amenities such as a library and food services, the Center would be located adjacent to the Guyana School of Agriculture.

5.14 The Principal Agricultural Officer-Education and Extension would be in charge of the Center and, in association with other senior officers of the Ministry, would develop training programs, select appropriate lecturers, and decide on the priorities of the Communication Unit's work. Assurances were obtained from the Government that it would appoint a training officer, under the Principal Agricultural Officer-Education and Extension, to ensure that the Center operates efficiently.

5.15 Rural Training Centers. The project would provide for the construction and equipping of six rural training centers in the areas where the Government is developing major agricultural projects (paras. 3.13 and 3.19). Each center would have, in addition to boarding facilities, a classroom for 36 trainees, two staff houses, either a workshop or home economics laboratory, and a demonstration farm. Two of the six centers would be provided with additional equipment to help farmers clear and cultivate forest land and open up new arable land.

5.16 These centers would offer a variety of short courses (one or two weeks) in such fields as commercial farming, organization of cooperatives, rural construction, nutrition, home economics and child care, for both practicing and prospective farmers and for rural women. The six centers together would train a total of about 8,100 persons annually. In addition, the centers would serve senior students of the Guyana School of Agriculture for their field training and would become focal points for farmers' meetings and for exchanging information on all aspects of development activity in the areas they serve.

5.17 The centers would be operated by the Agricultural Officer of the District Agricultural Extension Office, and their programs and administration would be coordinated by the Training Officer, who would also be responsible

for operating the Agricultural Extension In-Service Training and Communications Center (para. 5.14). The teaching staff would be provided mainly by the agricultural and livestock extension staff, who would also select the trainees, transport them to the centers and follow up on their training in the field. Assurances were obtained from the Government that it would review with the Bank/IDA the operations and programs of the centers on an annual basis.

5.18 Caribbean Animal Health Technicians' Training Center. The project would provide for establishment of a Caribbean regional center for the training of animal health technicians (paras. 3.11 and 3.18). This proposed Caribbean Animal Health Technicians' Training Center would be staffed by qualified veterinarians in the Caribbean region, and would offer a two-year course in animal health to train technicians who will work under the supervision of qualified veterinarians. It would have a capacity for about 72 students and would be provided with one staff house and boarding facilities for all the students. The Center would be located adjacent to the Guyana School of Agriculture so as to make use of the latter's basic science courses and the existing amenities. Equipment and technical assistance necessary for the Center's development at the initial stage (1974-75) are being provided under a UNDP project.

5.19 With this regional approach, investment will be more efficient and the participating countries will benefit from the economies of scale in training technical manpower. By producing technicians instead of highly qualified professionals, the Center will meet the basic requirements for veterinarian services at a lower cost in a short period of time, while enabling each country to make more effective use of the limited number of qualified veterinarians.

5.20 While only the Government of Guyana, as the major beneficiary, would be responsible for financing the Center's physical facilities, other Caribbean countries have agreed, in principle, to share the operating costs (Resolutions I and II of the Intra-Caribbean Conference in Jamaica in February 1974). Submission of evidence that Caribbean countries, other than Guyana, would use and share the operating costs of, not less than 50 places of the Center would be a condition for disbursement of the funds related to this project item.

5.21 Technical Assistance. To assist the governmental agencies in implementing the project and to improve the quality of the teaching staff in the **project institutions**, the project provides for a total of 7 man-years of specialist services and 57 man-years of fellowships (Annex 7). The specialists would assist the Government in (i) drawing up a new education law and programming the educational reform measures; (ii) developing curricula in the GTI and GSA, and strengthening the liaison between these institutions and employers; and (iii) operating the rural training centers and the Agricultural Extension In-Service Training and Communications Center. The fellowships would be provided mainly to upgrade the quality of supervisory and teaching staff for practical subjects in the project institutions.

5.22 Proposed Study. The project provides for a study that would assess the effectiveness of vocational and technical education in meeting Guyana's socio-economic objectives, and identify priorities for the long-term investment in education and training (paras. 2.06, 3.09 and 3.20). The study would give particular attention to determining:

- (i) the causes and characteristics of migration, both in and out of Guyana, and its impact on the labor market and manpower requirements in the domestic industries;
- (ii) the education factors involved in out-migration and the implications for the social rates of return on investment in vocational and technical education;
- (iii) new measures that may be required in vocational and technical education and in other institutional arrangements to meet domestic manpower needs and keep skilled workers from migrating to other countries.

A team of both local and foreign specialists would carry out the study. This study would be undertaken within the wider framework of UNDP-financed project on regional human resource development.

Cost of the Project

5.23 The total cost of the project, net of taxes, is estimated at US\$18.9 million. The breakdown by type of expenditure, shown in detail in Annex 8, is summarized on the next page:

	G\$ (millions)			US\$ (millions)			% of Total
	Local	Foreign	Total	Local	Foreign	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 Center	0.4	0.3	0.7	0.2	0.2	0.4	2.1
f) 6 Rural Training Centers	1.4	1.6	3.0	0.7	0.7	1.4	7.4
g) 1 Regional Animal Health Technician Training Center	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	<u>0.8</u>	<u>0.3</u>	<u>1.1</u>	<u>0.4</u>	<u>0.2</u>	<u>0.6</u>	<u>3.2</u>
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%)	<u>5.1</u>	<u>5.0</u>	<u>10.1</u>	<u>2.6</u>	<u>2.5</u>	<u>5.1</u>	<u>27.0</u>
TOTAL	18.9	18.8	37.7	9.5	9.4	18.9	100.0

5.24 The base costs are estimated in prices projected to the end of December 1974, assuming a price increase of 20% in 1974 (Annex 8). Added to these base cost estimates are contingency allowances for (a) unforeseen factors equal to 10% of the estimated base costs for civil works and 5% for furniture and equipment; and (b) expected price increases varying between 17% in 1975 and 15% p.a. in the subsequent three years for expenditures on civil works, equipment and furniture and for both local and foreign currency costs based on the recent inflation trend in Guyana, which exceeded international inflation. The price contingency allowances for the categories of technical assistance, the study, and project administration are based on expected price increases of 11% in 1975 and 7.5% p.a. during the rest of the project period. All contingency allowances amount to US\$6.1 million, or 48% of the base cost estimates (Annex 9).

5.25 The construction cost estimates were derived mainly from the updated prices of the civil works contracts for the first Bank/IDA education project. The base cost estimates were, however, adjusted to reflect the maximum use of local building materials and economical norms and standards in the design and construction of the project institutions. Further, the construction cost was computed net of taxes, which represent about 5% of the construction contracts. The result is that the estimated average school construction cost (including site development cost) ranges from US\$161 to US\$177 equivalent per square meter of the gross floor area, which is an upper medium level among the Bank-financed projects (Annex 10). In particular, standards in the design and construction of the rural training centers are modest and conform to local conditions. The Government plans to seek arrangements for community self-help for the civil works in the community secondary schools and rural training centers, so as to further reduce the project cost and stimulate community action. A local cost adjustment ranging from 8% to 30% has been made for the project institutions outside the Georgetown areas to allow for differences in transportation costs and availability of local skilled labor and building materials.

5.26 Furniture and equipment cost estimates are likewise based on actual costs incurred in the first project. Some allowances were made in updating the costs to December 1974 and for higher transportation costs because the proposed project institutions would be more dispersed than those of the first project.

5.27 As in the first project, the salaries of the Project Unit's director, general educator, architect, accountant and procurement officer as well as costs for office supplies and transportation have been included in the project cost.

5.28 The foreign exchange component of the project would be about US\$9.4 million equivalent, representing 50% of the total project cost (Annex 8). It was calculated on the basis of experience in the first project, as follows: site works, building construction, and professional services, 41%; furniture, 25%; equipment, 95%; technical assistance, 92%; and the study and project administration, 27%.

VI. IMPLEMENTATION AND DISBURSEMENT

Project Administration

6.01 To take advantage of experience gained in the first Bank/IDA project, the existing Project Unit, which was established within the Ministry of Education and has performed satisfactorily, should continue serving as the implementing agency for the proposed project and be responsible for (a) the overall management of project implementation, (b) coordination with other ministries and parties involved in the project, and (c) liaison with the

Bank/IDA. The services of the project director for the first project would be extended so that he can assume responsibility, on a full-time basis, for both the first and the proposed project. The Project Unit would be strengthened by the appointment of two additional staff members, both of whom would serve full-time: a project educator, to assist the director in carrying out administrative as well as educational responsibilities, and a project architect. The procurement officer and accountant positions (both full time) would remain. The project director would be directly responsible to the Permanent Secretary of the Ministry of Education, but would be empowered to make all day-to-day decisions related to the operation of the Project Unit and have direct access to all relevant ministers whenever necessary.

6.02 In addition, the Government agencies involved in the project, that is, the Ministry of National Development and Agriculture and the Guyana School of Agriculture, would each designate senior officials who would be responsible for implementation of the technical aspects of the project components related to the Ministry or School and for maintaining liaison with the Project Unit. The Government would also provide the Project Unit with adequate support staff, facilities and any other resources that may be required. Extension of the services of the project director for the first project and appointment of the project architect and the liaison officers, acceptable to the Bank/IDA, would be a condition for effectiveness of the loan/credit.

Sites

6.03 The sites have already been selected and found acceptable for all project institutions and extensions except for the seven pilot community secondary schools. Assurances were obtained from the Government that it would select sites acceptable to the Bank/IDA for these community schools with sufficient lead-time to avoid delays in construction.

Procurement

6.04 Contracts for civil works would be awarded on the basis of competitive bidding advertised locally and in accordance with local procedures, which are satisfactory to the Bank/IDA. Since most civil works are of small size, scattered throughout the country, foreign contractors are not expected to be interested; but they would not be precluded from bidding. Guyana has now six major construction firms and about 20 small contractors. They are competitive and capable of carrying out the construction involved in the project. Contracts for furniture and equipment would be awarded on the basis of international bidding in accordance with Bank/IDA guidelines. However, furniture and equipment that cannot be grouped in packages of at least US\$5,000 would be procured on the basis of the Borrower's regular procedures. Procurement under these procedures would not, in aggregate, exceed US\$215,000 equivalent or about 10% of the total cost of furniture and equipment. Since Guyana is a member of the Caribbean Community (CARICOM), domestic and other member countries' manufacturers would receive preferential treatment in bid evaluations. The preferential margin for domestic manufacturers would be limited

to 15% of c.i.f. costs of imports or of the applicable import duties, whichever is lower. The preferential margin for other members of CARICOM would be limited to 15% of c.i.f. costs of imports or the difference in tariff, whichever is lower.

Disbursements

6.05 The proposed loan/credit of US\$12 million would cover the foreign exchange component and 27% (US\$2.6 million) of the local currency costs. It would be equivalent to 64% of the total project cost of US\$18.9 million. The loan/credit would be disbursed over a period of four years (Annexes 11 and 12). Retroactive financing not exceeding US\$300,000 is recommended for expenditures made since July 1, 1974 in respect to expenses for professional services, technical assistance and project administration. Any surplus funds of the loan/credit would be used for priority items closely related to the original project, subject to the Bank's approval.

VII. AGREEMENTS REACHED AND RECOMMENDATIONS

7.01 During loan/credit negotiations, agreement was reached with the Government on the following points:

- (i) completion of curricula and transfer procedures, use of the facilities for community training programs, establishment of evaluation procedures and tracer systems, and selection of suitable sites in respect to the community secondary schools (paras. 5.05 - 5.07 and 6.03);
- (ii) initiation of a cooperative program for the training of practical subject teachers and preparation of an in-service training program in respect to secondary teacher training (paras. 5.10 and 5.11); and
- (iii) phasing out of the certificate program in the Guyana School of Agriculture, appointment of an officer responsible for the training of farmers and extension officers, and review of the operational programs of the rural training centers (paras. 5.12, 5.14 and 5.17).

7.02 A condition for effectiveness of the loan/credit would be the extension of the services of the project director for the first project and the appointment of the project architect and the liaison officers, acceptable to the Bank/IDA (para. 6.02).

7.03 A condition for disbursement of funds related to the proposed Caribbean Animal Health Technicians' Training Center would be submission of evidence that Caribbean countries, other than Guyana, would use, and share the operating cost of, not less than 50 places of the Center (para. 5.20).

7.04 The proposed project is suitable for blend financing consisting of an IDA credit of US\$4 million equivalent on standard terms and a Bank loan of US\$8 million equivalent to the Government of Guyana, for a repayment period of 30 years, including a 10-year grace period.

April 3, 1975

Comprehensive education data are useful in the evaluation of various education systems and as a basis for educational development between various countries. However, on the basis of the present data, a non-national comparison should be made. The data presented in the following table have been collected largely by the bank missions from government sources; the remainder are from the bank's operational work made to standardize definitions and, within limits, to check the accuracy of the data. Nevertheless, such data are still incomplete, and the bank is still working to complete the data. The bank is working to accelerate this progressively on the occasion of its operational work. The use of these data for the purpose of comparison should be borne in mind.

SUMMARY FOR DEVELOPING

SUMMARY FOR DEVELOPING

Number of Countries	39	64	64	64	64	65	64	62	36	(0.66-0.77)
Range	(5-98)	(1-58)	(1.0-9.0)	(3.8-32.3)	(6-119)	(18-72)	(1-43)	(9-36)	(0-35)	
Quartiles:										
Upper	72	18	4.7	21.0	86	4.5	29	26	23	41
Median	52	10	4.0	36	74	18.2	13	10	23	16
Lower	20	5	3.0	14.0	46	33	8	5	8	6

Symbolic:

Symbol:	Range:	Year
... Return nonvotable	A = 1965 or before	
0 Questionable	B = 1966	
1 Questionable less than half of unit	C = 1967	
2 Questionable	D = 1968	
* Includes part-time students	E = 1969	
	F = 1970	
	G = 1971	
	H = 1972	
	I = 1973	

Columns (1) and (2):	World Bank Atlas
Columns (3) - (9):	TERD Missions
Columns (10) - (12):	UNESCO Statistical Yearbook and/or
Columns (13):	TERD Missions

March 1975

GUYANA

Second Education Project

Public Education: Structure, Enrollments and Teachers, 1973

<u>Level</u>	<u>Grades</u>	<u>Age group</u>	<u>Enrollment</u>	<u>Teaching Staff</u>	<u>Percent of Staff Qualified</u>	<u>Pupil/Teacher Ratio</u>	<u>Population of age group</u>	<u>Enrollment as percent of age group</u>
PRIMARY LEVEL	1-6	6-11	131,580	3,979	42	33:1	142,651	93
UPPER PRIMARY LEVEL	7-9	12-14	38,359	1,804	44	21:1	62,800	61
SECONDARY LEVEL	7-11	12-16	24,237	1,020)	62	24:1	100,400	24
UPPER SECONDARY LEVEL	12-13	17-18	660	30)		21:1	35,900	1.8
TEACHER TRAINING (P)	12-13	17-18	292	24	100	12:1	35,900	0.8
TEACHER TRAINING (S)	12-14	17-19	73	12 ^{2/}	100	6:1	53,700	0.1
HOME ECONOMICS	10-11	15-16	127	24 ^{1/}	-	-	39,000	0.3
VOCATIONAL SCHOOLS	10-	15-	105 ^{3/}	6	n.a.	17:1	-	-
TECHNICAL INSTITUTES	12-13	17-18	3,074 ^{1/}	228	70	13:1	35,900	9
SCHOOL OF AGRICULTURE	10-13	15-18	111	9	67	12:1	39,000	0.3
UNIVERSITY OF GUYANA	12-	17-	1,441 ^{1/}	118	100	12:1	-	-
UNIVERSITIES ABROAD	14-	19-	108 ^{4/}	-	-	-	-	-

^{1/} Mainly part time.

^{2/} Full-time equivalent.

^{3/} Part time.

^{4/} In the University of West Indies.

Source: Ministry of Education and University of Guyana.

GUYANA

Second Education Project

Public Enrollments in the Secondary Education System: 1969-1988

	← Actual →						← Projection →		
Grades	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1976/77	1981/82	1987/88
7	3,368	3,548	3,450	4,077	4,255	4,300	5,300	5,600	5,900
8	3,403	3,981	4,369	4,254	5,027	4,600	5,600	5,800	6,000
9	3,388	3,704	4,260	4,587	4,508	5,000	5,700	5,900	6,200
10	3,387	3,641	4,143	4,758	4,714	4,800	6,100	6,200	6,300
11	4,107	3,916	4,310	5,179	5,731	5,700	6,300	6,500	6,600
Sub-total (7 - 11)	17,653	18,790	20,532	22,855	24,235	25,000	29,000	30,000	31,000
12 and 13	466	513	467	609	660	700	1,000	1,200	1,500
Sub-total (7 - 13)	18,119	19,303	20,999	23,464	24,895	25,700	30,000	31,200	32,500
(Teachers)	782	868	998	1,070	1,050	1,070	1,250	1,300	1,530
Community Secondary School (7 - 10)						500	1,000	10,000	16,000
(Teachers)						30	50	500	800
Total Enrollments						26,200	31,000	41,800	49,100
(Total Teachers)						1,100	1,300	1,800	2,330

1/ "Tops" of primary schools not included.

2/ By 1976/77, the six new multilateral schools will have added 4,000 new places in secondary schools.

3/ By 1981/82, it is assumed that the Government will have added 5,000-5,500 more places in community schools plus 1,000 in secondary schools and by 1987/88, a further 6,000, plus 1,000 secondary places, in addition to those in the second Bank project.

GUYANA

Second Education Project

Demand and Supply of Secondary School Teachers: 1973-1988

	(1) Stock 1972/3	(2) Stock * 1987/8	(3) Average Stock	(4) Wastage 5 percent	(5) Increase over 15 years	(6) Average Annual Increase	(7) Annual Output Needed
	$\text{Col (1) + (2)} \div 2$			5% of Col (3)	Col (2) - (1)	$\text{Col (5)} \div 15$	Col (4) + (6)
English	80	220	150	7.5	140	9.3	17
Modern Languages	17	53	35	1.8	36	2.4	4
Mathematics	51	195	123	6.2	144	9.6	16
Science	23	155	88	4.4	132	8.8	13
Social Science	43	173	108	5.4	130	8.7	14
Music	6	56	31	1.6	50	3.3	5
Physical Education	5	69	37	1.9	64	4.3	6
Agriculture	11	104	58	2.9	93	6.2	9
Industrial Arts	23	188	101	5.1	155	10.4	16
Home Economics	30	191	111	5.6	161	15.0	20
Commerce	6	110	58	2.9	104	6.9	10
Arts and Crafts	22	176	99	5.0	154	10.3	15
Library Teacher	-	63	32	1.6	63	4.2	6
TOTAL	317	1,753	1,026	51.7	1,434	99.9	151

* Based on Enrollments in 1987/8 shown in Annex 3.

Source: Ministry of Education and mission estimates.

GUYANA

Second Education Project

Current expenditure of the Central Government on
Education & Training: 1969, 1974 & 1981
 (G\$'000)

<u>Ministry</u>	<u>1969 ^{1/}</u> <u>Actual</u>	<u>1974</u> <u>Estimated</u>	<u>1981 ^{2/}</u> <u>Projected</u>
<u>Ministry of Education</u>	<u>16,844.1</u>	<u>39,079.0</u>	<u>50,981.0</u>
1. Primary	-	18,523.0	23,680.0
2. Tops of Primary	-	6,060.0	5,264.0
3. Community Secondary	-	-	2,600.0
4. Secondary/Multilateral	-	5,955.0	8,112.0
5. Upper Secondary ("A" level)	-	277.0	528.0
6. Teacher Training (primary)	-	1,242.0	1,379.0
7. Teacher Training (secondary)	-	187.0	1,152.0
8. Technical Education	-	1,426.0	1,492.0
9. University Education	-	3,666.0	4,400.0
10. Research & Curr. Development	-	445.0	540.0
11. Administration	-	1,298.0	1,834.0
<u>Ministry of Agriculture</u>	<u>170.9</u>	<u>286.1</u>	<u>918.0</u>
1. Agr. Educ. in primary schools	4.9	9.6	12.0
2. Grants to GSA	153.8	269.0	330.0
3. Farm Youth Training	12.2	7.5	8.0
4. Rural training center	-	-	255.0
5. Animal Health Trg. Center	-	-	58.0
6. In-service Trg. Center	-	-	245.0
<u>Ministry of Health</u>	<u>33.0</u>	<u>178.4</u>	<u>657.0</u>
1. Training of Para-medical Personnel	33.0	178.4	657.0
<u>Ministry of Public Services</u>	<u>46.3</u>	<u>97.0</u>	<u>116.0</u>
1. Government Training Center	46.3	97.0	116.0
<u>Ministry of Labor</u>	<u>74.1</u>	<u>15.0</u>	<u>18.0</u>
1. Grants to labor college	15.0	15.0	18.0
2. GITC	59.1	-	-
<u>Total</u>	<u>17,168.4</u>	<u>39,655.5</u>	<u>52,690.0</u>
Share of Ministry of Education	98.1%	98.5%	96.8%
As % of Current Expenditure	16.1%	16.5%	18.3%

^{1/} In current prices

^{2/} In 1974 prices

Source: Ministry of Economic Development and mission estimates.

GUYANA

Second Education Project

Capital Expenditure of the Ministry of Education: 1969-1974 (G\$)

TYPE OF EXPENDITURE	1969	1970	1971	1972	1973 Revised	1974 Estimate
1. Primary & Secondary School construction	691,572	186,871	140,042	435,479	550,882	1,000,000
2. Teacher Training College (primary) and multilateral schools ^{/1}	302,074	723,160	361,534	2,411,714	7,499,640	9,691,426
3. Facilities for practical subject teaching	132,614	43,819	53,890	-	50,000	244,000
4. Teachers' Houses	70	6,640	18,980	48,887	25,000	90,000
5. Education for the Handicapped	5,002	13,398	-	-	-	-
6. Equipment	88,759	161,502	126,085	103,999	166,455	394,000
7. Technical Education ^{/2}	105,594	2,336,229	458,336	157,503	67,400	260,000
8. University of Guyana	3,099,333	337,747	490,073	500,000	400,000	484,000
9. Loans to Students ^{/3}	258,943	299,382	292,464	207,426	397,000	1,025,000
10. Approved Schools ^{/4}	-	-	-	-	-	-
11. School Sites	33,816	-	40,000	-	-	25,000
12. Research & Development	-	-	-	-	-	-
TOTAL	4,717,577	4,108,748	1,980,404	3,925,008	9,156,317	13,285,426
As % of Capital Expenditure of Central Government	10.5	9.4	4.3	4.5	10.4	11.1

^{/1} The IBRD/IDA Education Project

^{/2} Technical and vocational schools, including Government Industrial Training Center.

^{/3} Teacher Training Colleges

^{/4} Probationary Schools

GUYANA

ANNEX 7

Second Education Project

Technical Assistance

S: Specialist
F: Fellowship

Area	YEARS QUARTERS				1975				1976				1977				1978				1979				Man (Years)	Cost (US\$) ^{2/}
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
I. <u>Ministry of Education</u>																									3(3)	50,000
1. Education Law & Programming					S	S	S		S																1(1)	35,000
2. Educ. Planning & Programming					F	F	F		F	F	F	F	F												2(2)	15,000
II. <u>Secondary Teacher Training</u> ^{1/}																									21(23)	172,500
1. Teacher Trainer:																										
- Education									F	F			F	F	F	F	F								3(3)	22,500
- English					F	F			F	F	F	F	F	F											2(2)	15,000
- Mathematics					F	F			F	F	F	F	F	F											2(2)	15,000
- Science					F	F			F	F	F	F	F	F											2(2)	15,000
- Social Studies					F	F			F	F			F	F											2(2)	15,000
- Physical Education					F	F			F	F															2(2)	15,000
- Agriculture														F	F		F	F							1(1)	7,500
- Technical Education									F	F			F	F	F	F	F								2(2)	15,000
- Arts and Crafts									F	F			F	F	F	F	F								2(2)	15,000
- Home Economics					F	F			F	F	F	F	F	F											2(4)	30,000
- Music									F	F	F	F	F												1(1)	7,500
III. <u>Technical Education</u> (Georgetown Technical Inst.)																									19(20)	220,000
1. Curriculum Development					S	S			S	S	S	S	S												1(2)	70,000
2. Teacher Trng. - Plumbing					F	F			F	F			F	F											2(2)	15,000
3. - Bricklaying									F	F			F	F											2(2)	15,000
4. - Surveying					F	F			F	F			F	F											3(3)	22,500
5. - Mechanics									F	F			F	F											5(5)	37,500
6. - Electricity									F	F			F	F											1(1)	30,000
7. Maintenance Mechanics					F	F			F	F	F	F	F												2(2)	15,000
IV. <u>Agricultural Education</u>																									28(17-3/4)	258,625
1. Guyana School of Agriculture									S	S	S	S	S												10(10-3/4)	108,125
A. Curriculum Development									S	S	S	S	S												1(1)	35,000
B. School Administration					F																				1(1/4)	1,875
C. Agronomy/Horticulture					F	F			F	F	F	F	F	F	F	F	F								2(3)	22,500
D. Agricultural Engineering									F	F			F	F											1(1)	7,500
E. Food Science									F	F			F	F											1(1)	7,500
F. Agricultural Chemistry					F	F			F	F	F	F	F	F											1(2)	15,000
G. Plant Protection									F	F			F	F											1(1)	7,500
H. Biology					F	F			F	F			F	F											1(1)	7,500
I. Audio-Visual Aids					F	F			F	F			F	F											1(1/2)	3,750
2. Extension Training and Communications Center and Rural Training Centers																									4(4)	120,000
A. Extension Training					S	S			S	S	S	S	S												1(2)	
					F	F			F	F															2(1)	
B. Communication (Educational)									S	S	S	S													1(1)	
3. Rural Training Centers					F	F	F	F	F	F	F	F	F	F	F	F	F								14(3)	22,500
<u>Total</u>																									71(63-3/4)	678,000

^{1/} One in each field (two in technical education), except in Education will be appointed as supervisor for secondary education in the Ministry of Education, but will also work for the College of Education as part-time lecturers.

^{2/} During loan negotiations, fellowships were increased by six man-years, but the cost summary table (Annex 8) remains unadjusted for this change.

GUAYANA
Second Education Project
SUMMARY OF PROJECT COST ESTIMATES
(in G\$ 000)
(US\$ 1.00 = G\$ 2.00)

ANNEX 3

CODE	STUDENT PLACE	AREA/1	SITE	- ACADEMIC AND CAMPUS -		- BOARD NO -		STAFF	PROFESSIONAL	- TECHNICAL ASSISTANCE -		PROJECT		- TOTAL -	
I	COMMUNITY SECONDARY SCHOOLS (CO)	4,480	211,400	1,342.5	6,713.2	131.1	1,615.4							11,217.5	5,600.0
CO-01	Canje	640	30,200	193.5	968.1	69.2	228.8		138.6					2,598.2	799.1
CO-02	Blatmont	640	30,200	193.5	968.1	69.2	228.8		138.6					2,598.2	799.1
CO-03	Victoria	640	30,200	193.5	968.1	69.2	228.8		138.6					2,598.2	799.1
CO-04	Lodge	640	30,200	181.2	906.0	67.2	234.8		130.5					2,519.7	759.9
CO-05	Grove	640	30,200	193.5	968.1	69.2	228.8		138.6					2,598.2	799.1
CO-06	Seventville	640	30,200	206.1	1,030.8	69.9	231.0		147.5					2,598.2	799.1
CO-07	Charley	640	30,200											1,665.3	842.6
II	MULTILATERAL SCHOOLS (Exensions)(EX)	6,630	89,450	585.8	2,928.0	110.0	605.9		388.8					4,824.0	2,412.0
EX-01	Sheidon Line Path	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-02	Central Correntyne	640	9,200	59.2	295.6	15.2	89.8		42.6					502.4	251.2
EX-03	Rosignol	640	9,200	59.2	295.6	15.2	89.8		42.6					502.4	251.2
EX-04	Cumalange Lodge	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-05	Annandale	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-06	North Georgetown	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-07	South Georgetown	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-08	Covent Garden	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-09	Seventville	880	13,950	90.4	432.0	22.6	136.8		54.2					736.0	378.0
EX-10	Saint Ignatius	155	5,600	42.0	210.0	11.9	83.9		85.1					393.8	196.9
III	SECONDARY TEACHER TRAINING COLLEGE (TT)	1,500	31,075	186.9	934.5	63.7	378.5		134.6					1,988.2	994.1
IV	GUIANA SCHOOL OF AGRICULTURE (SA)	216	4,790	40.0	167.6	17.0	300.0		256.0					1,070.4	535.2
V	AGRICULTURAL IN-SERVICE TRAINING AND COMMUNICATIONS CENTER (IS)	30	7,820	83.8	273.7	27.0	80.0		84.0					913.7	456.9
VI	RURAL TRAINING CENTERS (RT)	216	25,310	348.3	831.1	35.2	267.0		454.3					3,040.2	1,520.1
RT-01	Black Bush Polder	4,950	60.3	133.9	7.0	41.0	70.0		77.7					457.7	228.8
RT-02	Overwater	4,950	60.3	133.9	7.0	41.0	70.0		77.7					457.7	228.8
RT-03	Anna Regina	4,950	60.3	133.9	7.0	41.0	70.0		77.7					457.7	228.8
RT-04	St. John's	4,950	60.3	133.9	7.0	41.0	70.0		77.7					457.7	228.8
RT-05	Port Kaituma	4,950	60.3	133.9	7.0	41.0	70.0		77.7					457.7	228.8
RT-06	Leteben	4,950	60.3	133.9	7.0	41.0	70.0		77.7					457.7	228.8
VII	CARIBBEAN ANIMAL HEALTH TECHNICIAN TRAINING CENTER (AH)	72	13,710	129.7	1409.1	22.8	-		266.3					45.0	102.0
VIII	GEORGETOWN TECHNICAL INSTITUTE (TI)													140.0	240.0
IX	STUDY (ST)													100.0	190.0
X	PROJECT MANAGEMENT (PM)													1,000.0	500.0
BASE COST ESTIMATES		12,094	383,630	2,717.0	12,259.2	799.8	3,367.2	1,060.6	69.7	727.5	1,958.6	490.0	776.2	1,000.0	25,525.8
XI	CONTINGENCIES														
	Physical	(8%)													
	Price	(37%)													
TOTAL PROJECT COST															
FOREIGN EXCHANGE COMPONENT															
(5%)															
Boarding and staff housing areas not included.															

GUYANA

Second Education Project

Contingency Allowances

(US\$'000)

	Site Works		Building		Furniture		Equipment		Professional Services		Project Administration		Technical Assistance				Study		TOTAL
	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	Local	Foreign	
Physical increase %	10		10	10	5	5	5	5	10	10	-	-	-	-	-	-	-	-	
Price increase %	39		39	39	53	53	53	53	39	39	18	18	15	15	-	34	9	9	
Total project cost without contingencies	557.0	801.5	4,425.0	2,598.7	326.1	108.7	89.2	1,694.4	538.6	440.7	365.0	135.0	24.5	220.5	-	388.1	36.5	13.5	12,763.0
Physical increase	55.7	80.1	442.5	259.9	16.3	5.4	4.5	84.7	53.8	44.1	-	-	-	-	-	-	-	-	1,047.0
Price increase	219.7	316.1	1,745.4	1,025.0	172.5	57.5	47.2	896.4	212.5	173.9	66.3	24.5	3.7	33.1	-	58.3	6.6	2.4	5,061.1
Total contingencies	275.4	396.2	2,187.9	1,284.9	188.8	62.9	51.7	981.1	266.3	218.0	66.3	24.5	3.7	33.1	-	58.3	6.6	2.4	6,108.1
Total project cost including contingencies	832.4	1,197.7	6,612.9	3,883.6	514.9	171.6	140.9	2,675.5	804.9	658.7	431.3	159.5	28.2	253.6	-	446.4	43.1	15.9	18,871.1

GUYANA

Second Education Project

Unit Capital Costs of Project Institutions (in US\$)

<u>Category</u>	<u>Gross Area in M² per student place or house</u>	<u>Average Cost per M² of cons- truction ^{1/}</u>	<u>Cost per Student Place or House</u>			
			<u>Construction & Site Deve- lopment ^{1/}</u>	<u>Furniture</u>	<u>Equipment</u>	<u>Total</u>
I. <u>ACADEMIC AND COMMUNAL</u>						
Community Secondary Schools	4.3	170	899	54	180	1,133
Secondary Teacher Training College	6.4	161	1,246	76	421	1,743
Rural Training Centers ^{2/}	10.9	177	2,730	81	1,360	4,171
Caribbean Animal Health Technician Training Center ^{3/}	17.8	161	3,742	158	-	3,900
II. <u>BOARDING</u>						
Rural Training Centers	8.3	179	1,494	93	-	1,587
Caribbean Animal Health Technician Training Center	11.4	161	1,850	118	-	1,968
III. <u>STAFF HOUSING</u>						
Rural Training Centers	111.6	205	22,825	-	-	22,825
Caribbean Animal Health Technician Training Center	139.0	161	22,500	-	-	22,500

^{1/}Total cost of site development included in Category I - Academic and Communal.

^{2/}Rural Training Centers will provide short courses of non-formal education for about 81,000 persons annually.

^{3/}All equipment for the Caribbean Animal Health Technician Training Center will be granted by UNDP.

^{4/}Includes local cost adjustments, ranging from 8% to 30% for differences in transportation costs and availability of local skilled labor and building materials.

GUYANA
Second Education Project
Project Implementation Schedule

	YEAR				1975				1976				1977				1978				1979				COMPLETION DATE
	QUARTER	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Community Secondary Schools																									
Civil Works			///	///	:::	:::	+++	+++	***	***	***	***	***	***	***	***	***	***	***	***	ccc	ccc	ccc		
Furniture and Equipment				////	////	////	zzz	zzz	www	www	www		vvv	vvv	vvv	vvv	ccc	ccc	ccc	ccc	ccc	ccc	ccc		
Multilateral Schools (Extensions)																									
Civil Works			///	///	:::	:::	+++	+++	***	***	***	***	***	***	***										
Furniture and Equipment				////	////	////	zzz	zzz	www	www	www	vvv	vvv	ccc	ccc	ccc									
Teacher Training College (Secondary)																									
Civil Works				///	///	:::	:::	+++	+++	***	***	***	***	***	***	***	***	***							
Furniture and Equipment				////	////	////	zzz	zzz	www	www	www			vvv	vvv				ccc						
Guyana School of Agriculture																									
Civil Works			///	:::	:::	+++	+++	***	***	***	***	***	***												
Furniture and Equipment				////	////	////	zzz	zzz	www	www	www	vvv	vvv	ccc											
In-Service Training and Communications Center																									
Civil Works				:::	:::	+++	+++	***	***	***	***	***	***	***	***										
Furniture and Equipment				////	////	////	zzz	zzz	www	www	www	vvv	vvv		ccc										
Rural Training Centers																									
Civil Works			///	///	:::	:::	+++	+++	***	***	***	***	***	***	***	***	***	***	***	ccc	ccc	ccc	ccc		
Furniture and Equipment				////	////	////	zzz	zzz	www	www	www		vvv	vvv	vvv	vvv	ccc	ccc	ccc	ccc	ccc	ccc	ccc		
Caribbean Animal Health Technician Training Center																									
Civil Works			///	///	+++	+++	***	***	***	***	***	***													
Furniture				////	////	zzz	www	www	www	vvv	vvv		ccc												

COMPLETION DATE

CIVIL WORKS:

/ Selection and survey of sites
: Preparation of construction bid documents
+ Tender and contract awarding
* Construction

FURNITURE AND EQUIPMENT:

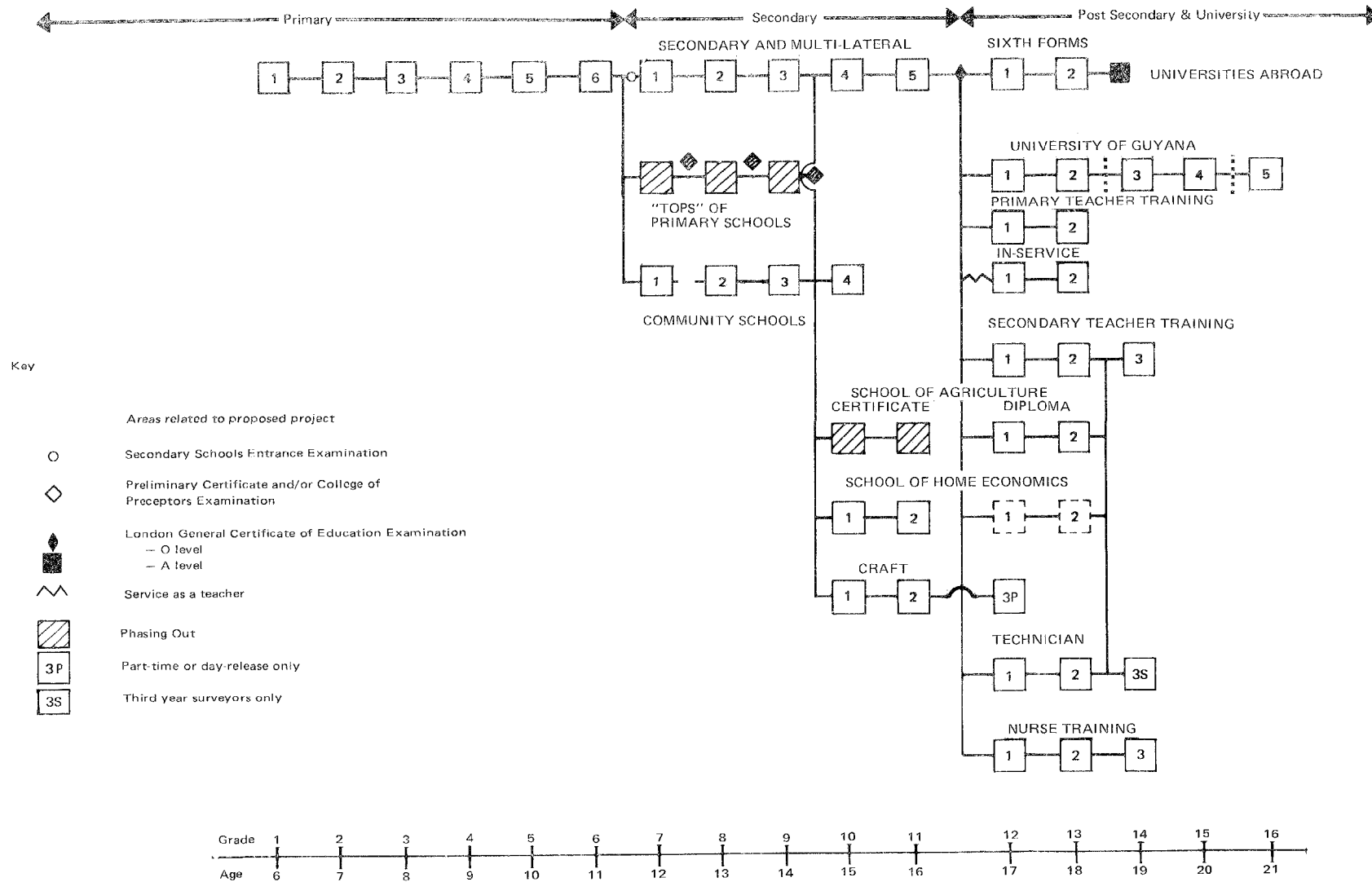
" Preparation of master lists
z Preparation of bid documents
w Tender and contract awarding
v Manufacturing and reception
c Installation

GUYANASecond Education ProjectEstimated Schedule of Disbursements

<u>FY</u> <u>(Semester)</u>	<u>Expenditures</u> <u>(US\$ M.)</u>			<u>Disbursements</u> <u>(US\$ M.)</u>		
	<u>Amount</u> <u>During</u> <u>Semester</u>	<u>Accumula-</u> <u>ted Expend-</u> <u>itures*</u>	<u>Unspent</u> <u>Balance*</u>	<u>Amount</u> <u>During</u> <u>Semester</u>	<u>Accumula-</u> <u>ted Dis-</u> <u>bursements*</u>	<u>Undis-</u> <u>bursed</u> <u>Balance*</u>
1975						
1st			19.2			12.0
2nd	0.2	0.2	19.0	0.1	0.1	11.9
1976						
1st	0.2	0.4	18.8	0.1	0.2	11.8
2nd	1.8	2.2	17.0	1.1	1.3	10.7
1977						
1st	1.8	4.0	15.2	1.1	2.4	9.6
2nd	3.0	7.0	12.2	1.9	4.3	7.7
1978						
1st	3.3	10.3	8.9	2.1	6.4	5.6
2nd	3.5	13.8	5.4	2.2	8.6	3.4
1979						
1st	3.5	17.3	1.9	2.2	10.8	1.2
2nd	1.5	18.8	0.4	0.9	11.7	0.3
1980						
1st	0.4	19.2	-	0.3	12.0	-

*At end of semester.

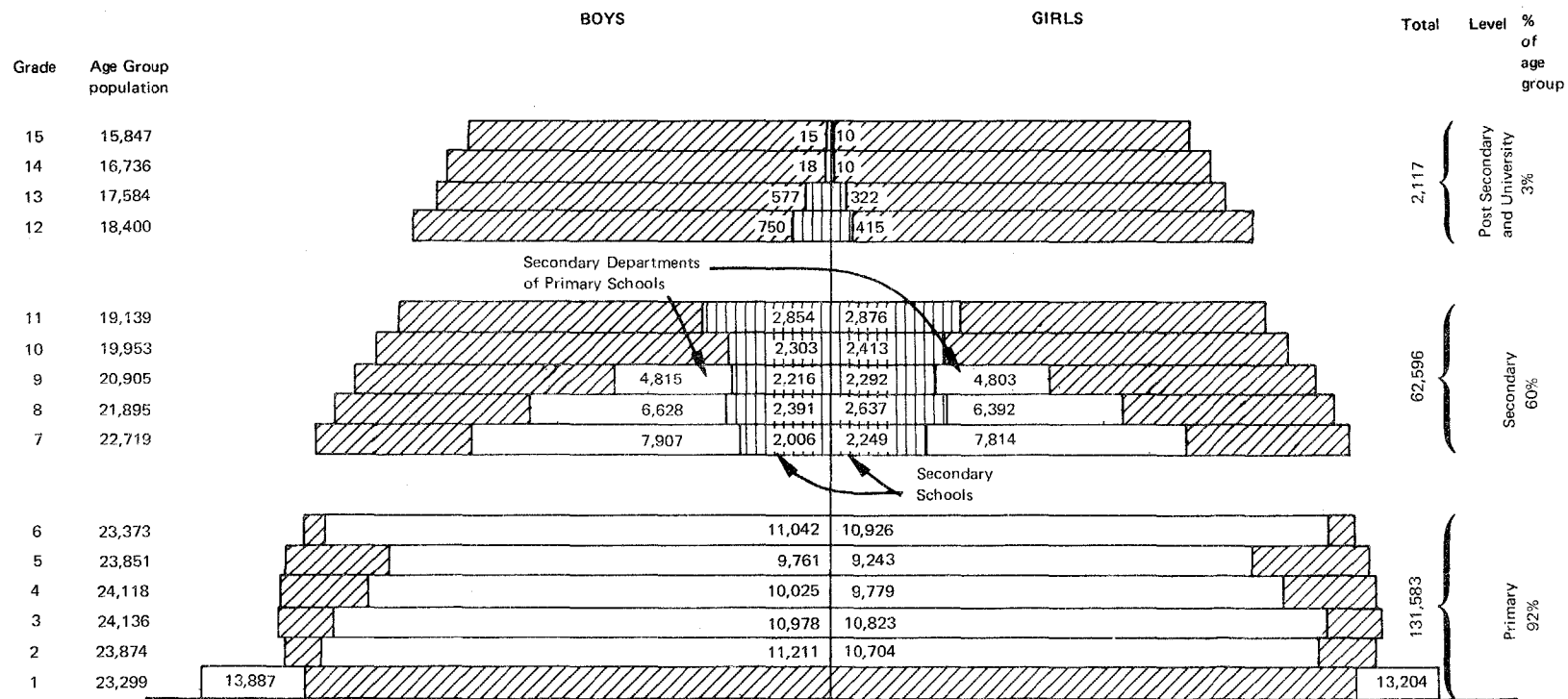
GUYANA: STRUCTURE OF THE EDUCATIONAL SYSTEM, 1974



The age-grade relationship applies only when students enter school at 6 and proceed through the system without repeating a class

World Bank-8897(2R)

GUYANA
Full-time enrollment & population pyramid 1973



Age Group Population

Note: Enrollments include over-age and younger-age pupils.

World Bank-8896(R)

