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STAFF APPRAISAL REPORT

COMMONWEALTH OF DOMINICA

BASIC EDUCATION REFORM PROJECT

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Human Resources Operations Division
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

Currency Unit =	Eastern Caribbean Dollars (EC)
EC 1.00 =	US$0.37
US$1.00 =	EC2.7

FISCAL YEAR

July 1 - June 30

ACADEMIC YEAR

September - June

PRINCIPAL ABBREVIATIONS AND ACRONYMS USED

ACEO	Assistant Chief Education Officer
CAS	Country Assistance Strategy
CDB	Caribbean Development Bank
CDC	Clifton Dupigny College
CDU	Curriculum Development Unit
CEE	Common Entrance Examination
CEO	Chief Education Officer
CGCED	Caribbean Group for Cooperation in Economic Development
CO	Curriculum Officer
CXC	Caribbean Examinations Council
DEO	District Education Office
EC	Eastern Caribbean
EMU	Educational Materials Unit
EO	Education Officer
EPU	Education Planning and Statistics Unit
ESL	Education Strategy Letter
ETX	Educational Testing and Examinations Unit
GCE	General Certificate of Education
ICB	International Competititive Bidding
JSP	Jumior Secondary Program
MOE	Ministry of Education, Youth Affairs and Sports
MOF	Ministry of Finance
NCB	National Competititive Bidding
OECS	Organization of the Eastern Caribbean States
OERS	OECS Education Reform Strategy
PHRD	Policy and Human Resource Development (Japanese Government Grant)
PIM	Project Implementation Manual
PMU	Project Management Unit
SEO	Senior Education Officer
SCL	Single Currency Loan
SLS	Schools Library Service
TTC	Teacher Training College
UWI	University of the West Indies

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BASIC EDUCATION PROJECT
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This report is based on sector discussions over the period 1993-1995 between the Government and the Bank and Association and CDB. A team of international and local consultants and counterparts conducted studies of various aspects of the sector between May 1994 and February 1995. Those reports then formed the basis of the proposed project. A reconnaissance/identification mission of February 1995 was followed by a preparation mission of April 1995. In June/July 1995, a Bank/IDA mission comprising Ms. Karen Lashman, Principal Operations Officer (LA3HR), Messrs. Ralph Romain, Principal Education Specialist (HDD), and Marco Mantovanelli, Consultant (LA3HR) visited Dominica and appraised the proposed project. Ms. Marie-Christine Theodore provided support in document production. Peer reviewers, Ms. Marlaine Lockheed (HDD) and Mr. Richard Cambridge (SA2DR), reviewed the IEPS for the OECS Basic Education Project from which this project was developed. The Department Director, Project Adviser and Sector Division Chief were Messieurs Paul Isenman, Robert Crown, and Julian Schweitzer, respectively.

COMMONWELTH OF DOMINICA

BASIC EDUCATION REFORM PROJECT

LOAN AND CREDIT AND PROJECT SUMMARY

Borrower:	Commonwealth of Dominica
Implementing Agency:	Ministry of Education, Youth Affairs and Sports
Beneficiary:	Ministry of Education, Youth Affairs and Sports
Poverty:	Not applicable
Amount:	Loan of US$ 3.07 million equivalent Credit of SDR2.10 million (US$3.07 million equivalent)
Terms:	Standard amortization term grace period, and interest rate for fixed rate US dollar single currency loans with an expected disbursement period of 3-6 years; and Credit repayment in 35 years including a grace period of 10 years, at standard IDA terms.
Commitment Fee:	For loan, 0.75% on undisbursed loan balances, beginning 60 days after signing, less any waiver; for credit 0.50% on undisbursed credit balances, beginning 60 days after signing, less any waiver.
Financing Plan:	Government US$ 1.8 million equivalent; IBRD/IDA US$6.1 million equivalent
Net Present Value:	Not Applicable
Map:	IBRD No. 27486
Project Identification Number:	DM-PA-6969

BASIC DATA SHEET

	A. General Country Data		Year	Source
	1. Population Estimate (thousand)	72	1993	b
	3. GNP per Capita (US$)	2,680	1993	b
	4. GNP per Capita -- Real Growth Rate (%)	4.8	1985-93	b
B.	**Social Indicators**			
	1. Crude birth rate	25.5	1992	a
	2. Crude death rate (per 1,000)	7.9	1992	a
	3. Average Annual Rate of Population Growth (%)	-0.3	1985-1993	b
	4. Total Fertility Rate (births per woman)	2.5	1992	b
	5. Infant Mortality Rate (per 1,000 live births)	18	1992	b
	6. Life Expectancy at Birth (years)	72	1992	b
C.	**Education Data**			
	1. Net Enrollment Rates (% of age group enrolled)			
	Primary	98	1993	c
	Secondary	54	1993	c
	Higher	n.a		
	2. Efficiency Data			
	Student/Teacher Ratio (public schools)			
	Primary	21.6	1994/95	c
	Secondary	16.6	1994/95	c
	Dropout Rates (% per year)			
	Primary	n.a		
	Secondary	2.0	1991/92	c
	Repetition Rates			
	Primary	n.a		
	Secondary	9.3	1991/92	c
	Illiteracy Rates			
	Female	n.a		
	Total	n.a		
	3. Expenditure Data			
	Total Public Education Spending as a % of GNP	5.2	1993	e
	Total Public Recurrent Education Spending as a % of Central Recurrent Govt budget	17.1	1994	d
	Shares of Public Recurrent Education Expenditures			
	Primary	52.7	1994	d
	Secondary	27.3	1994	d
	Higher	11.7	1994	d
	Other	8.3	1994	d

Sources

a	Commonwelth of Dominica, Demographic Statistics, 1993
b	The World Bank Atlas, 1995
c	Commonwealth of Dominica, Education Statistics, 1994
d	Budget Estimates of Dominica 1994/95
e	National Accounts Statistics of the Commonwealth of Dominica

COMMONWEALTH OF DOMINICA

BASIC EDUCATION REFORM PROJECT

1. BACKGROUND

1.1 The Commonwealth of Dominica is one of the member countries of the Organization of Eastern Caribbean States (OECS), with a current population of 71,183[1]. A small island economy with difficult terrain, a paucity of financial and human resources, and a narrow production base (primarily bananas), Dominica is also subject to natural disasters. Production of bananas, the main agricultural crop, is not competitive with Central American bananas and exports depend upon preferential access to the United Kingdom under the Lomè Convention. The Government which came into power in 1980 confronted major rehabilitation efforts following hurricane damage. Reconstruction of infrastructure was financed with the assistance of donors, including IDA. This reconstruction program was accompanied by a stabilization program supported by the IMF. The reforms brought about improvement in public finances, but these were temporary and did not invoke a sufficient response from the rest of the economy.

1.2 The stagnation of the economy in 1985 (GDP growth of 1.3% compared with 5.5% in 1984), due mainly to diminished agricultural and manufacturing exports, prompted the launch of a Structural Adjustment Program in 1986. During the first two years of the program, macroeconomic targets were exceeded. The end of 1989, however, marked a shift in the performance of the economy and the Government's ability to respond rapidly to changes in the external environment. Hurricane "Hugo" (September 1989) caused considerable damage to banana production and exports, slowing growth significantly. Additionally, with the turn of the decade, unfavorable movements in the pound sterling/EC$ exchange rate had a negative impact on export performance. Fiscal discipline weakened as the Government granted a large civil service wage increase of 21% and started financing major investment projects through borrowing from domestic banks and bilateral agencies. In 1994 the Government managed to improve its fiscal performance slightly by stepping up its tax collections, reducing the size of civil service through attrition by about 8% and containing its expenditure on goods and services. Tourism has also expanded recently and there are reasons for some cautious optimism. However, the country is still facing a difficult period of economic transition coupled with a stringent fiscal situation worsened by severe storm damages to infrastructure and agriculture occurred during the 1995 hurricane season. The indications are that, while the situation is difficult, Dominica needs to invest its way out of the problem.

1.3 To this end, the Government recognizes that it must accelerate diversification while rapidly increasing the efficiency of banana production. The success of this desired economic transition will depend in part on human resource development, to ensure the labor force required for an increasingly competitive international economy. To secure the requisite modern labor force, standards of education and learning must be raised significantly. This will necessitate a major reform of its education sector, with special attention to enhancing the effectiveness and efficiency of the system, and the equity of access to educational opportunities.

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[1] Figure from the 1991 National Census

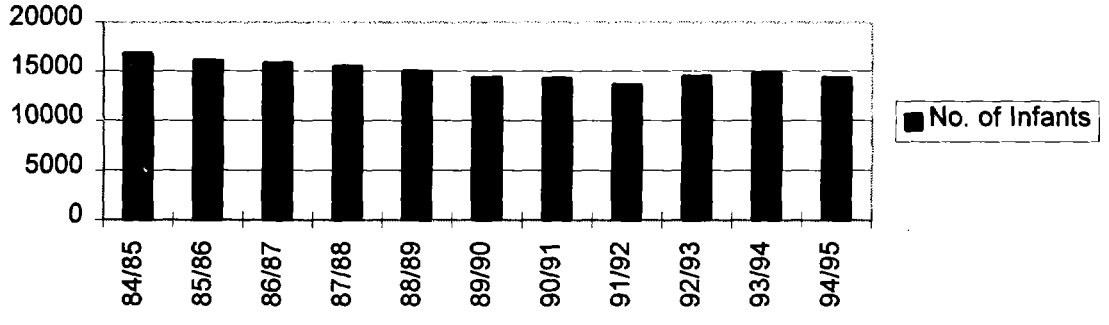
2. SECTORAL CONTEXT

A. Current Educational Situation

2.1 Despite the severe fiscal crisis, Government commitment to education in Dominica is strong. As a proportion of total government expenditure, Dominica has allocated, on average, just over 17 percent of its recurrent budget to education annually over the 1989-1994 period, a level generally above world averages. However, recurrent expenditure in the education sector over the period rose at a slower pace (44.8 percent) than the total recurrent budget, (56.6 percent). The sector suffered its share of budget cuts, especially in areas such as maintenance of school plant and the provision of school supplies and materials that can entail long term weaknesses. Yet, universal coverage at the primary level has been attained, with a gross enrollment rate of 121.2% in 1994/5 representing an enrollment in public and private schools of 14,320 pupils compared to a 5-11 cohort of 11,818.[2]

2.2 The primary network consists of 59 public schools (of which 5 are government assisted) and 5 private schools. Though primary school coverage has increased, the actual number of children enrolled in primary schools has been falling slightly but steadily in recent years (amid a slowdown in population growth to a current annual negative rate of 0.3% percent) from a peak enrollment of 16,833 in the 1984/85 academic year (Annex 2, Figure 1A). At present population growth rates, the 5-14 age group is projected to decline further until around the Year 2001, and then remain more or less constant.

Table 1.1: Primary Level Enrollment
(Including JSP)



Source: Commonwealth of Dominica, Education Statistics, 1994

2.3 The attainment of almost universal coverage at the primary level, however, masks serious inequities in access to learning opportunities. A recently completed school mapping exercise, observed the under-utilization of many facilities (with the notable exception of the schools in the North-West) while many of the schools of the capital (Roseau) are overcrowded. Much of the physical infrastructure is in poor condition, in some cases posing safety and health dangers to children and teachers. About 25%

[2] The approximately 21 percent excess enrollment over population appears to be due to the repetition rate, to a small number of children under the age of five enrolled in primary school, and to the enrollment of students of age 12+ , including 1,976 students enrolled in the three years of the Junior Secondary Program (JSP), in the primary "all-age" schools.

of a total of 554 classrooms at primary level should be replaced, and about 35% are in need of serious rehabilitation works.

2.4 Serious access problems exist at the secondary level of the education system, with transition rates from primary to secondary education among the lowest in the OECS. Of every 1,000 children entering primary school, only about 400 continue their education into the secondary cycle. In 1994/95, only 4,289 students were accommodated in the nation's 13 public secondary schools (which comprise 5 government and 8 government-assisted), (Annex 2, Table 1C) while the only private secondary school accommodated an additional 222, altogether representing about 54 percent (net of repeaters over 16 years of age) of the 12-16 age cohort. There is also an uneven distribution of school places (the 13 public schools are located in only 5 of the 10 parishes) with high concentration of schools--about 47% of the places-- in the Roseau area, thus imposing high school transport costs on families living in areas of the island more remote from the capital.

2.5 The low transition rates from primary to secondary reflect constraints in the supply of secondary places, not in the demand for them. This demand has been met in recent years, by expanding existing schools or converting lower cycle junior secondary schools into five-year schools (Annex 2, Table 4). The 98 percent completion rate for those who enter secondary schools reflects the high value attached to such education by those students who gain entry and their families.

2.6 Notwithstanding progress made to date in expanding access to secondary education, the overall shortfall in places remains significant. With a current cohort of secondary school age (i.e., 12-16 years) of some 7,500 youth, even with the planned addition of 735 secondary places under this proposed project, universal coverage would not be attainable until well into the first decade of the next century unless significant additional resources can be mobilized and/or efficiency measures instituted to release resources for further expansion of places.

2.7 In the light of the shortage of secondary school places, access to secondary education depends, as in the other OECS countries and elsewhere in the Caribbean, on performance in the competitive Common Entrance Examination (CEE) (Annex 2, Table 2A), commonly known as the 11+ exam, given at the end of Standard 7, equivalent to Grade 6. Since only about one in two children gains entry to secondary education, the stakes on this exam are exceptionally high, as perceived by students, parents and teachers alike. Consequently, succeeding in the CEE becomes the driving force of primary education, particularly at the upper grade levels, thereby substantially distorting teaching practices away from mastery of the curricula and toward the areas to be tested by the exam.

2.8 Each year significant numbers of the children who do not win a place in the secondary school continue in all-age primary schools enrolled in the Junior Secondary Program (JSP) which is supplemented by practical subject centers for home economics and industrial arts. For the vast majority of these students, this schooling reflects the terminal point in their formal education, except for a fortunate few who receive a second chance in the 14+ exam known as the Dominica Junior Secondary Program Examination (JSPE), on the results of which they may be placed in available places at the Form 3 level at regular secondary schools, in effect repeating one year of schooling, thus graduating from Form 5 one year later than if they had entered through the CEE.[3]

[3] In 1994 about 600 candidates sat the exam and only 120 gained access to Form III in the five-year secondary school cycle.

2.9 The shortages of qualified teachers in the upper grades at the all-age schools, coupled with the noted lower standards applied in the curricula, suggest limited value-added to the education of youth within the program, thus also exacerbating problems of their absorption into the labor force upon leaving school.

B. The Organizational Structure and Institutional Framework

2.10 As in other countries in the sub-region, the education system of Dominica is organized into four principal levels--pre-school, primary, secondary and tertiary education (Annex 2, Chart 1). For the purposes of this Report, Basic Education comprises the primary grades (age 5-11) and the lower cycle of secondary education (age 12-14). Pre-school education is voluntary and still in its early stages of development. In 1992-1993, 2,369 children were enrolled in pre-school programs, which are privately financed, with a small Government contribution (EC$ 42,000 in the 1994/95 Estimates) to selected centers. Compulsory education applies to children aged 5-15. The primary level comprises seven grades called "standards", ending at "Standard 7" which corresponds to Grade 6 in the international terminology.[4]

2.11 Those students who obtain the best scores on the CEE taken at the end of Grade 7 are assigned to secondary schools where they pursue a five-year course of study, organized into Forms 1-5. Upon completion of Form 5, those students who perform well enough in the Caribbean Examinations Council (CXC) and/or the General Certification Examination (GCE) have the option of moving into tertiary education; the remainder move into the labor market.

2.12 At the tertiary level, the Clifton Dupigny College (CDC) offers associate degree courses in Arts and Applied Arts and Science and Applied Sciences, courses towards Craftsman and Technician certificates and classes in Adult and Continuing Education. The Teacher Training College (TTC) offers GCE advanced level courses, towards a Teacher's Diploma. Those students wishing to pursue more advanced studies attend overseas institutions, colleges and universities.

2.13 Primary responsibility for educational policy and programs is vested in the Ministry of Education, Youth Affairs and Sports (MOE). Beyond its role in formulating education policy and standards, it oversees operation of the school system, consistent with its mandate under a pre-independence Education Ordinance.

2.14 Organizationally, the Ministry comprises seven sections: Administration (Personnel and Accounts), Education, Sports, Library Services, Tertiary Education , Project Development and Youth Affairs(Annex 2, Chart 2). The Administration Section is responsible for all financing and budgeting activities of the sector. The Education Section is under the management of the Chief Education Officer (CEO), assisted by a team of professional and support staff, including two Senior Education Officers (Secondary and Teacher Training College), an Education Officer (EO)/Coordinator for Curriculum, a Coordinator for Technical/Vocational Education, six Assistant Education Officers who are subject specialists (family life education, music, special education, physical education and arts and crafts) and four District Education Officers (DEOs) responsible for overseeing primary school operations in their

[4] This is because the infants (ages 5 and 6) effectively go through a kindergarten and Grade 1 stage in the first two years, but these are counted as two standards in Dominica.

assigned district--North, East, South and West. [5] Under the direct management of the CEO are a small examinations unit, a statistics assistant, and a Stores and Supplies clerk.

2.15 The most serious obstacle to improvement in the sector lies in the weakness of the MOE Head Office. The Ministry has offered a modicum of leadership to the school system only through the dedicated work of a small number of persons. Supporting a reform will require significant strengthening of the MOE staff at all levels. The various technical services of MOE (curriculum, statistics, testing etc.) lack basic equipment and trained specialists and are grossly understaffed. Strengthening school supervision to play an important role in leading the system towards reform and greater efficiency, will require appropriately trained administrative and curriculum supervisors, and a rational and duly applied system of annual evaluation of teachers and principals that encourages good performance. This will require the elimination of anomalies such as the salary of the Senior Education Officer (secondary) being graded below that of the secondary school principals that the SEO supervises. Inadequate education data collection, processing and reporting, and feedback to the system has hampered the development of planning functions. Financial and personnel management suffer similar weaknesses in terms of the level of staff, training and equipment. Finally, overall, MOE is badly housed in the Governmental Headquarters building, coping with serious shortage of office and storage space , and modern office equipment.

2.16 The role played by the church in education in Dominica is significant. Although there are only five assisted denominational primary schools, compared to 54 Government schools, these five account for almost 20 percent of public school enrollment. At secondary level, however, there are eight assisted denominational schools (compared to five Government schools) accounting for 47 percent of public school enrollment.

[5] A fifth post of EO/Pre-school is sanctioned but has remained vacant

3. SECTOR ISSUES AND GOVERNMENT STRATEGY

A. Issues

(1) Quality and Effectiveness of Teaching and Learning

3.1 Student Achievement. Educational testing to date has been conducted on a national basis only in the form of terminal examinations of attainment or aptitude, with the results serving some screening purpose for admission to the next level of education or, in the case of the CXC examination and some craft and technician exams, for entry into jobs as well. Hence, no reliable indicators exist to measure the quality of primary or secondary education within the respective cycle, either in individual schools or across schools. There is no professionally designed test of achievement at the end of each grade and, hence, no marker of an individual student's mastery of subject matter until the end of the cycle, when the CEE selects students for available secondary places on the basis of their score. In addition, the absence of a statistical unit and full time testing staff within the MOE, hampers the production of comparative data of achievement across schools and years.

3.2 Student scores on the CEE suggest low overall achievement levels. CEE scores also indicate wide disparities in student achievement and hence, most likely, in teaching and learning quality across schools and districts. Review of the overall performance of candidates for the period 1989-1993, reveals that girls are outperforming boys in all subjects on the CEE. The percentage of boys "passing" the CEE is consistently below of the percentage of boys in the group that sat the examination, suggesting some kind of under-achievement on the part of this gender group. (Annex 2, Table 2A)

3.3 As at the primary level, inadequate information exists to adequately assess the quality of secondary education. Students with the highest scores on the CEE are assigned to available secondary places. The relatively high secondary school completion rates belie the significant obstacles to learning that most encounter, including a large proportion of untrained teachers and inadequate equipment and supplies in key subject areas, such as the sciences, and the poor condition of some physical plant. Roseau secondary schools enroll the highest CEE ranking students and tend to achieve the highest average CXC score.

3.4 Like the CEE, the CXC, is an imperfect measure of student achievement or the overall quality of education. Table 2 Annex 2B provides data on CXC subject passes in selected secondary schools for 1984 and 1992. Generally there has been a decline in pass rates, denoting low levels of student mastery of curricula throughout the system. Significant inter-school differentials exist in student achievement and, thus, possibly in education quality. One Roseau school, for example, although showing a decline in passing rates over the period, displayed the lowest fall in rates, submitted 61 percent more student per course entries in 1992 compared to 1984, and performed well above the national average. While pre-selection of students through the CEE must be a factor in the superior performance, there is also the advantage of a larger supply of university trained teachers at that school and of better provisions of supplies and materials.

3.5 An important equity issue in Dominica concerns the provision for education of the population residing in the poorer sections of the island. Small rural schools are often at disadvantage coping with the system-wide weak provision of trained teachers and supplies . A case in question is that of the minority Carib population. The Caribs (about 3,000 people) reside largely in the reserved territory in the North-East of the country. The four primary schools serving this territory (Atkinson, Salybia, Sineku, and Concord) suffer from a shortage of trained teachers and a particularly deficient supply of materials and books, accentuated by the absence of parental means to purchase books. Thus, the schools are ill-equipped to deliver a primary program that would allow Carib children to compete on equal terms with their fellow students for secondary school places. In 1994 a total of 79 children from the Carib area sat the CEE and only 9 (11 percent) were able to enter the secondary program, compared to 48 percent nation-wide.

3.6 Factors Contributing to Low Achievement. No systematic analysis has been undertaken of the causes of low student performance in many schools. Existing information, however, suggests several key contributing factors. These include: (a) quantitative and qualitative problems with regard to major education system inputs, particularly the teaching cadre, educational equipment and supplies, and facilities; (b) inadequate supervision of instructional delivery by school supervisors and principals; (c) poor articulation of curricula and educational standards within and between grades; (d) distortion of the primary curriculum by the pressure of competition for secondary school places; and (e) weak institutional capacity to plan, manage or monitor performance of a system that will respond to the needs of students of wide ability ranges.

3.7 Teacher Qualifications. Project preparatory studies have highlighted a state of crisis with regard to the quality of teachers and teaching throughout basic education. High proportions of unqualified teachers are engaged in the system--only 37 percent at primary level are trained. At secondary level, only 28 percent of the teachers have university degrees and many of these (62 percent) have not been professionally trained. The situation is particularly critical at the primary level, adversely affecting teaching and learning in the core subjects--English, mathematics, social studies and sciences.

3.8 The TTC has ten full-time teacher trainers for the compulsory subjects, and six part-time trainers for the optional courses. Of the full-time staff, four hold a Master's degree, while the other six have completed a Bachelor's degree program. All of them need to be trained in the training of teachers. The science and language laboratories of the Department are short of equipment and supplies, and the library is short of audio-visual aids and reading materials for both the trainees and the tutors. The TTC program is a two year one. Trainees spend roughly four of the six school terms within the college; the last two terms are spent in practice teaching in the schools after which the trainees return to the TTC for a few weeks to review the work they have done and take the final examinations.

3.9 The conclusion of observers within the system is that the performance of the bulk of trained teachers, in terms of their mastery of content and method, is barely distinguishable from that of untrained teachers. Several factors, other than the difficult conditions under which the college operates, contribute to such a poor outcome:

(a) the UWI curricular requirements that are not well related to realities in the schools, with too much emphasis placed on research;

(b) the inability of the Ministry (for whom the teachers are being trained) to influence program content, and

(c) the insufficiency of supervised practice teaching in the training program.

3.10 Throughout the system, teacher performance is also adversely affected by poor working conditions. The lack of basic educational materials and equipment to complement and support classroom teaching and learning, and of minimum physical plant requirements, including electricity, water and sanitation facilities, constitutes an obstacle to efficient performance. In some schools, especially the most disadvantaged ones in terms of resources, teacher absenteeism and attrition rates are marked, the latter particularly problematic among many younger, better qualified teachers who have employment alternatives. Partly because of low morale, teachers are said to resort excessively to taking sick leave and traditionally many of them take a day off--in effect a self-given paid holiday-- on pay-day at the end of the month to settle their bills.

3.11 In Dominica, as elsewhere in the OECS, most candidates for primary teacher training are drawn from the teaching service, that is from among those already employed by the MOE. The generally low academic qualifications for entry into the system limit the number of candidates who can easily master the curriculum of the TTC. The average trainee barely attains the passing grade in the final examination of the teacher training program; thus, the comparatively high unit cost of teacher training has limited payoff, in fact perpetuating a vicious cycle of low achievement among primary school students, because in part, they are being taught by many teachers who, even when trained, have limited attainment themselves. Finally, teacher training problems are compounded by the limited outreach of the teacher trainers and the limited availability of in-service training programs for the trained teachers upon their return to the education system

3.12 More rigorous teacher training program admission requirements, such as at least four CXC passes, including English and Mathematics, are needed. Complementary steps will need to be taken to raise the entry level for recruitment into the teaching profession, and establish some greater MOE influence (as employer) over the training program.

3.13 Performance Evaluation. Educational research has shown that the quality of education is highly correlated with the intensity of supervision and monitoring and feedback in the system. In recognition of this, Dominica is preparing measures to strengthen performance monitoring of the public servants generally. For example, a new reporting form has recently been introduced. The institution of regular, system-wide school performance review is necessary. Although some performance evaluations of teachers and principals are conducted, allowing, in theory, for follow-up action in case the teachers in question did not improve their performance, in practice, the system does not carry much weight and it is not rigorously applied.

3.14 Curricula. The Curriculum Unit is charged with developing curricula, teaching materials, and tests. The Unit is seriously understaffed for its functions and responsibilities, and has no technical expertise in production and publishing of educational materials and design of tests. The staff comprises one EO, an Assistant EO, and a secretary. The lack of modern equipment and functional office space hampers the efforts of the unit. With the exception of science at secondary level, none of the other syllabi has been fully developed and implemented. Trained curriculum specialists are needed in each of the core curricular areas--science, social studies, mathematics and English.

3.15 In Dominica, as in other OECS countries, teaching tends to focus on basic facts with limited attention given to developing critical thinking skills or fostering student research and investigation, even in such subjects as science. Expert analysis has indicated that particular attention should be paid to the

language arts policy, especially to the potential in the primary school years to build bridges between English, the official language of Dominica, and the French and English creoles most commonly spoken by the students.

3.16 Curricula at both the primary and secondary levels have become overloaded. In an attempt to respond to demands for more diversified courses, particularly in the technical and vocational areas, subjects have been added in an *ad hoc* manner, without adequate attention to their cost implications or the integrity of the whole curriculum. As a result, primary schools are insufficiently focused on the basic, core subjects. The curriculum needs to be coordinated between levels and consolidated to avoid the tendency towards proliferation of subjects and the consequent high cost of covering a too fragmented curriculum, particularly at secondary level.

3.17 Educational Materials. MOE has prepared a list of approved school text books which are produced by the major British publishers. Published prices for books are fixed by these publishers in the United Kingdom, with annual price increases that often exceed the local inflation rate without any real control by the MOE or the local booksellers. There is also no control on the mark-up on textbooks and other imported books, although indications are that it is set at an average of 25 percent over the published price. The burden posed by the cost of textbooks on families is heavy. Although the recent standardization of basic textbooks and the sale and purchase of used ones helped to alleviate the pressure on family budgets, in some primary schools in the outlying areas the majority of pupils do not have all the books required. This problem is particularly acute in the schools of the Carib territory where it is exceptional for children to have any books. In the secondary schools the situation is less severe as a result of the Government grant of scholarships and bursaries to about 900 students, amounting to approximately US$175,000 equivalent per year.

3.18 The Government, has indicated its desire to provide free text books in all primary and secondary schools. In view of the current fiscal constraints, this proposal requires careful analysis of the scope of coverage intended (range of subjects, grade levels, number of books per student) and the management arrangements--accounting, distribution, and financial--required under various options that might be entertained. A study of the issue will be required in order to fully assess the intended scale and nature of the textbook supply mechanism that could be successfully applied to Dominica. The management, institutional, and logistical arrangements required by a subsidy scheme should be carefully weighed, together with the associated costs.

3.19 Supplementary reading materials and various forms of teaching apparatus are urgently needed to support teachers in the early grades, if standards of student and teacher performance are to be raised. Expert review suggests that it would be feasible to establish a nucleus of a unit for preparing and producing such materials to supplement what can be purchased in the stores, to determine Government's procurement policy on such materials, and to contribute to any sub-regional effort in production of such materials, especially at primary level.

3.20 To fulfill its significant potential to produce supportive educational materials, particularly at the primary level, and thus contribute to desired improvements in the quality of education, MOE requires: (i) technical staff capacity in educational materials editing and publishing, which will assist the Ministry to become more market-wise in its contracting processes; (ii) furniture, equipment and supplies to permit to desk top publishing, as appropriate, as well as advance the publishing readiness of material it produces, thereby reducing costs of external publication and manufacturing; (iii) improved methods of selection of

textbooks from the broad choices available on the international market which are responsive to the CXC syllabi.

3.21 Testing and Measurement. MOE designs and administers the CEE and the JSPE, and administers the external examinations (i.e. CGE, CXC). The Curriculum Unit is charged with the CEE, the Technical-Vocational officer with the JSPE, and the Examinations Unit with the administration of the CXC and CGE. The CEE is designed by a committee within MOE on the basis of the content of primary school syllabi. The tests are printed and scored entirely in Dominica. A team of teachers marks the scripts and the marks are processed in the Government Computer Center. The need exists for a professionally designed testing system to improve the CEE and to expand the testing program to include at least one national test within the primary cycle (about two years before the CEE) and one within the secondary cycle (at Form 3 level), thus facilitating the diagnosis of learning and teaching problems in time to take corrective measures.

3.22 Schools Library Service. The Public Library Service in Dominica is under the direction of MOE. Aware of the poor reading situation, especially in rural areas, the government instituted the School Library Extension Scheme (SLS) to serve the schools, beginning with the primary schools. The SLS provides technical assistance to the schools in the establishment of varying types of book collections and training of teachers in the management of the materials. To date 16 primary schools have been assisted through this program. Services are also offered to 19 rural schools by the single Mobile Library Unit which visits the schools on a two week circuit offering loan services to the students.

3.23 Supplies. The Stores Clerk, who reports directly to the CEO, places catalog bulk orders for basic supplies for all public primary schools during the month of July. The supplies are then stored in a rented building and delivered to the schools twice a year at the beginning of a new term, depending on the availability of the truck owned by MOE. Only one percent of the recurrent budget for education is spent in supplies, clearly not satisfying the pressing needs of the schools. Each Government secondary school has its own provision for supplies in the budget estimates but the release of these funds must be approved by the Ministry of Finance (MOF). The supply of materials to the schools on a regular basis is needed in order to provide a more suitable learning and teaching environment; however, under the present stringent fiscal situation, the funding should come from a gradual reallocation of sector budget resources.

3.24 State of Physical Plant. The current state of much of the physical plant is not conducive to adequate teaching or learning. Many primary schools were constructed in the 1970s when, with substantial assistance from the Canadian Government, the country embarked on a major education expansion program. The two decades that have since passed, with minimal maintenance or repair of facilities, have taken their toll. Deterioration is widespread, with half of all schools in need of repair or renovation with regard to plumbing, roofing, ceilings, electrical wiring, corrosion of metal frames and columns (exacerbated by constant sea blast), drainage, lighting and fencing. Many lack working toilets.

3.25 School maintenance jobs are contracted out to private firms, under the oversight of the MOE's maintenance unit, which includes a Project Supervisor and two regional maintenance officers, one for the Southern and Eastern and one for the Northern and Western education districts. In actuality, the limited budgetary allocation to maintenance, coupled with limitations on the monthly travel allowance permitted for these maintenance officers, severely circumscribes preventive as well as repair-oriented maintenance of plant.

(2) Efficiency of the Educational System

3.26 Current teacher to student ratios in public schools are 1:21.6 at the primary level and 1:16.6 at the secondary level. The primary ratio exceeds the reasonable Government prescribed standard of 1:35. At the secondary level, in schools without a sixth Form, a ratio of 1:25 would be more appropriate. The relatively high existing ratios reflect the absence of close monitoring of costs and efficiency and the lack of detailed planning and programming in regard to school enrollments and the recruitment and deployment of teachers.

3.27 High teacher to student ratios have exacted a heavy financial as well as qualitative toll on the education system. The high proportion of the recurrent education budget expended on salary and other personal emoluments (representing about 97 percent of recurrent allocations to primary schools in 1993/94), seriously constrains resource availability for other key educational inputs, particularly improved management, educational equipment and supplies, and the maintenance of school plant and equipment. Extensive research has shown that, except at the extremes, lower teacher to student ratios do not adversely affect either the quality of education provided or the levels of learning and achievement.

3.28 The implications of the proposed reductions in teacher to student ratios are significant. At the primary level, there will be a continuing decline in enrollments over the next few years, reflecting demographic change. Consequently the demand for teachers will decline. Special measures will, therefore, need to be carefully programmed to cope with the reduced demand for primary school places. At the very least, there will be a need to reduce sharply the recruitment of new teachers over a period of about five years, to transfer some primary teachers to the secondary level, and to adopt revised strategies for teacher training, focusing on attaining a 100 percent trained service and improving educational standards.

3.29 On the other hand, the implications of not effecting these changes to the ratios are serious. In their absence, either qualitative improvements such as those to be supported under the Basic Education Reform Project will not be able to be financed, or the Government will have to raise the education sector share of the national budget, which is highly unlikely given current and projected fiscal constraints associated with the banana crisis.

(3) Equity of Access to Educational Opportunities

3.30 Significant gender inequalities in access to education exist in Dominica, as elsewhere in the OECS. Of increasing social concern are the gender differentials in student achievement, commencing at the primary level, with girls outperforming boys on the CEE and subsequently at the CXC (Annex 2, Tables 2A, 2B). On the basis of the CEE raw scores used to select students for secondary places, girls are securing the predominant share of such places, comprising 57.8 percent of public secondary enrollment in 1994/95. Neither the underlying causes nor the long term consequences of this phenomenon are known, but the potential negative ramifications for economic and social development warrant careful study.

3.31 Poorer families face special geographic constraints to access to good quality education. The heavy concentration of secondary schools in Roseau limits their availability to many poor, rural families. At the same time, the weak CEE performance of many students attending schools outside Roseau restricts their access to secondary education.

3.32 While public education is provided free, with no official Government imposed tuition fee, other annual education-related expenditures which must be borne by the household can be considerable. These include uniforms, school bus transport, which can average over US$400 equivalent per student per academic year; textbooks and other educational materials which outlays have been estimated to range from around US$100 per student at the primary level to US$370 equivalent at the secondary level; and various levies imposed by individual secondary schools.

B. Government Sectoral Policy and Financing

3.33 Education Policy. National development policy for the education sector has been elaborated in various documents. The most recent one, the Government's Medium-Term Strategy Paper of April 1994, consistent with the OECS Education Reform Strategy, emphasizes the provision of skills to the labor force to increase labor productivity and facilitate economic diversification. To achieve these results, "higher" priorities are given to organization and management concerns of the sector ministry as well as to increase the ratio of expenditures on supplies and equipment in education budgets. The primary and secondary school curricula will be revised, and made more uniform throughout the system. More classroom places will be made available at the secondary school level, giving priority to expanding existing high performing schools". The Paper mentions also the need to increase the average primary student to teacher ratio to at least 30:1.

3.34 The new Government that came into power in June 1995 is developing its sector policy. However, it has indicated support for the priorities inherent in the project: expanding access to school places, improving the quality of sector management and of teaching, and improving the supply of materials and maintenance services to the schools.

3.35 Notwithstanding the political commitment to sector reform, it will be necessary to undertake institutional and policy reforms to attain desired improvements in the effectiveness and efficiency of the system, and enhance equity of access to educational opportunities and, ultimately, learning outcomes. The current weakness in the administration of the sector suggests the need to increase the number of senior level staff, to establish a permanent capacity for the conduct of sector planning, efficiency studies, and implementation of project and program, and to establish discrete units for curriculum development, testing and measurement and education materials. Proposed changes in structure are shown in Annex 3, Chart 3.

3.36 Sector Financing. Annual outlays in education over the past five years have averaged around 17 percent of total recurrent expenditures [6] while the sector provision in the 1994/5 Estimates amounted to 17.1 percent of the national total (Annex 3, Tables 1 and 2). The share of the public budget allocated to education is not likely to increase significantly over the near term. Thus, the Government

[6] This does not include the subvention to the University of the West Indies--UWI

recognizes the need to assign high priority to improving the efficiency of use of education sector resources.

3.37 Traditionally, approximately 60 percent of recurrent education expenditures was allocated to primary, and 20 percent to secondary. However, since at least 1990/91 there have been modest fluctuations in the allocations to secondary education, including a rise to about 28 percent of the recurrent budget. This increase reflects in part the expansion of enrollment due to the expansion of secondary places, with the phasing out of some technical-vocational programs at Goodwill and St. Martin's schools. According to the 1994/95 Estimates the sub-sector shares of the sector budget (including the contribution to UWI), were as follows:

Sub-Sector	Amount EC$	Percent of Total
Administration	1,717,530	5.7%
Pre-Primary	42,000	0.1%
Primary (Including Special Educ.)	15,727,180	52.7%
Secondary (Govt. and Assisted)	8,144,480	27.3%
Tertiary (CDC,TTC and UWI)	3,495,775	11.7%
Public Library	648,930	2.5%
TOTAL	29,775,895	100.0%

Source: Dominica Budget Estimates 1994/95 (including the vote for the contribution to UWI)

3.38 In the absence of a proper plan for the sector, it is impossible to forecast the evolution of these intra-sectoral allocations. In the public financing of primary and secondary schools, the mix of salary and non-salary allocations is grossly inefficient. Salaries consume 97 percent of total recurrent allocations to primary schools and 95 percent of the allocations to secondary government schools.

3.39 Significant variations exist in the per student recurrent expenditure by level of education. Unit costs in 1994/95 were US$419 equivalent per student at the primary level, and US$652 equivalent at the secondary government level . Differences exist among Government secondary schools, ranging from Dominica Grammar with US$709 equivalent per student to Goodwill with U$367 equivalent. Ironically, the Assisted secondary schools, have generally a much higher per student cost financed by the Government than the Government schools (Annex 3, Table 3B).

3.40 Capital investment on education represented about 7 percent of the Government's capital budget in 1994/95, in line with the OECS regional average. The focus of past investment programs has been rehabilitation or extension of primary and secondary schools.

4. SECTORAL ASSISTANCE STRATEGY

A. The Bank's Role and Strategy

4.1 The Country Assistance Strategy (CAS) for the OECS countries, including Dominica (Report No.14295-LAC dated April 10, 1995), falls within the parameters of the regional OECS assistance strategy. The Bank continues to rely on the coordinating role of the Caribbean Group for Cooperation in Economic Development (CGCED) for the implementation of economic and sector work and financial assistance in the region, and on close cooperation with the CDB. In recognition of the small size of the OECS economies, the World Bank Group provides its lending on a 50/50 IDA/IBRD blend.

4.2 The Bank seeks to support the Government efforts aimed at: (i) accelerating private sector-led economic diversification; (ii) restructuring the banana industry, improving competitiveness and agriculture diversification (iii) restructuring the public sector to ensure sustained adequate levels of public savings, while promoting greater regional collaboration; (iv) promoting human resource development and poverty alleviation; and (v) sustaining natural resource management. To these ends, the Bank is pursuing a three-pronged approach in Dominica, as elsewhere in the sub-region. First, through the Economic and Sector Work (ESW), it is providing intellectual leadership, in collaboration with the IMF and CDB, to strengthen the institutional capacity of the country to identify priority policies and programs and effectively implement them. Second, the Bank is strengthening CDB capacity in human resource development and environmental management, so that in full partnership with the Bank, it increasingly can undertake ESW and lending in these key development areas, including the channeling of increased Bank resources to these sectors through CDB. Third, the Bank is proactive in donor coordination, including mobilizing the scarce external financing available to OECS countries, the main forum for which coordination will continue to be the Caribbean Group for Cooperation in Economic Development (CGCED).

4.3 The proposed project supports fully the CAS targeting the priority area of human resource development, catalyzing an education sector adjustment process to improve efficiency of public resource use and providing a reform that is consistent with the regional efforts being adopted elsewhere in the OECS sub-region. Through sector analysis carried out during the preparatory phase, the Bank has sought to strengthen Dominica's institutional capacity to identify and implement priority development policies and programs. To this end, with financial support from a grant from the Government of Japan, multi-disciplinary teams comprising international consultants and a consulting firm, local consultants and local counterparts, assessed in depth key issues within the education sector, and collaboratively identified cost-effective approaches to address them.

4.4 The project is one segment in a larger program of assistance to the other four active Bank member countries in the OECS -- St. Lucia, Grenada, St. Vincent and the Grenadines, and St. Kitts and Nevis -- to meet their human resource development needs. A Loan and a Credit were approved in January 1995 for a Basic Education Reform Project (3837 SLU; CR2676 SLU) in St. Lucia which is jointly financed by the Bank and CDB. In order to expedite subsequent lending operations it was agreed between the two Banks that CDB would focus on St. Kitts and Nevis, and St. Vincent and the Grenadines, and the IBRD/IDA on the remaining two, Dominica and Grenada.

4.5 To further promote regional collaboration, project preparatory work has drawn heavily on Caribbean technical expertise. The use of a common core of consultants across the OECS countries has promoted exchange of ideas between countries. Moreover, such project preparation has been carried out in close consultation with the OECS Secretariat, building on its extensive work to formulate and implement an OECS Education Reform Strategy (OERS), to which the OECS Governments are committed. The project emphasis on sector planning and institutional development, qualitative improvement of basic education, and expansion of access to education reflects the priority actions identified in the OERS.

4.6 The OERS envisages activities at both the national and regional level. Unexpected delays occurred in establishment of the regional machinery. However, at their meeting in Montserrat in November 1993, the OECS Governments agreed that the national governments should proceed with their own urgently needed education investment programs, consistent with the Reform objectives. This project is in keeping with that decision. The proposed investments also are consistent with priority sector development needs identified in the Bank report, "Access, Quality and Efficiency in Caribbean Education: A Regional Study," prepared at the request of member governments in the Caribbean, discussed widely in the region, and formally presented at the June 1992 meeting of the Caribbean Group for Cooperation in Economic Development (CGCED), and the request emanating from that CGCED meeting for direct Bank technical and financial support to accelerate human resource development in this region.

B. Bank Sector Experience and Lessons Learned

4.7 The Bank has had limited sector experience in Dominica and other OECS countries. Prior to the St. Lucia project noted above (para 4.4), its only sector involvement was in support of the OECS Regional Vocational and Technical Education Project, Credit 1785-CRG, in the amount of SDR 4.8 million (US$ 6.5 million equivalent) with a total project cost of US$ 13.5 million equivalent, co-financed by the Organization of Petroleum Exporting Countries and the CDB, the latter of which also served as project executing agency. The Credit was approved by the Board in 1987, became effective in 1987, and the Credit was closed on June 30, 1994. While national coordinators were appointed by each of the five participating OECS Governments, the locus of project implementation work was at CDB in Barbados. Consequently, the OECS Governments, including Dominica, did not gain experience with Bank-financed project execution, procurement, disbursement, and other procedures

4.8 An Implementation Completion Report (ICR) was prepared for the Regional Vocational and Technical Education Project.[7] Review to date indicates that the overall performance of the project was mixed. Notable achievements include a substantial increase in technical and vocational education capacity in the participating countries. Project investments also led to extensive overseas training of technical and vocational teachers for the respective education systems. The pre-vocational curricula developed under project auspices, though developed only for the first year of study and introduced too late during the project implementation to be fully evaluated, holds promise of providing, with possible adjustments, a solid orientation to technical fields.

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[7] Report No 14404 Implementation Completion Report, Eastern Caribbean States, Fourth Caribbean Development Bank, Regional Vocational and Technical Education Project (Credit 1785-CRG), April 28, 1995, Human Resources Division, Country Department III, Latin America and the Caribbean Region.

4.9 Notwithstanding actual and potential contributions, the OECS project also experienced significant problems. Many of the civil works experienced substantial delays in start-up and completion of construction, leading to price increases and creating the need for long-term storage of equipment and furniture delivered according to the original implementation schedule; and pervasive lack of maintenance of new and rehabilitated facilities led, in the latter cases in particular, to facilities being virtually indistinguishable within two years of completion of such civil works from those without any "renovation." Problems also arose with regard to the quality and quantity of procured instructional equipment, and as a result of insufficient attention to its commissioning and utilization. Many of the problems relating to safety and security of equipment and civil works ultimately were successfully addressed via an Action Plan collaboratively developed and implemented by the Bank and CDB. Shortfalls in execution of other major project activities nevertheless hampered the full achievement of project objectives. For example, the project laid the groundwork for labor market information systems to provide needed linkages and feedback between technical/vocational training and the labor market; and three countries produced labor bulletins. However, the lack of direct project financing for this, as well as other "soft," institutional development-oriented areas, coupled with shortages of staff at the country-level, hampered actual establishment of the planned systems, and the conduct of annual labor surveys on which they depend. Weak consultant reports, and insufficient Government commitment or incentives, led to abandonment of envisaged cost recovery and savings measures intended to ensure program sustainability. Attempts were made to establish the envisaged Regional Training Board to coordinate tech/voc programs across the OECS, building on experience gained by the project in establishing several National Boards; few regional meetings were held. However, insufficient commitment to such a Board, and insufficient project resources to build the requisite policy constituency, ultimately undermined such efforts.

4.10 Lessons Learned. Review of this OECS project, as well as of education projects in Jamaica (Second and Third Education Projects, respectively Loan 727-JM and Loan 2070-JM), Barbados (First Education and Training Project, Loan 1642-BAR), and Haiti (Third Education Project, Credit 1305-HA) reveals that it is essential to: (a) link project objectives to the broader sector and macro policy objectives to enhance overall commitment to, and hence success in execution of, the project; (b) carefully evaluate local procurement and project implementation capacities to ensure that adequate and timely institutional support is available for the smooth operation of the project; (c) ensure on an annual basis that Government budgets provide the requisite project financing so that the planned pace and breadth of project activities can be sustained, and the project completed according to schedule; (d) involve all major stakeholders in an education reform process (i.e., the Ministry staff, principals, teachers and teachers unions, and parents and community groups) from the early stages of project design; and (e) readily, ensure that the policy environment within which the project will operate is supportive of project objectives and enables conduct of the needed systemic and institutional reforms.

4.11 These lessons are taken into account in the proposed project design. The project objectives are drawn from the recommendations of the OECS Education Reform Strategy paper, endorsed by all OECS member governments, the Bank's report "Access, Quality and Efficiency in Caribbean Education: A Regional Study" and experience gained during the preparation of the St. Lucia Basic Education Reform Project. The preparatory phase included wide consultation with all major entities in the sector, including the Teachers and civil service's unions, the teacher training college, private sector employers, the staff of MOE. As civil works represent about 50 percent of total base costs, much attention was given in the project preparatory phase to development of prototype designs which take into account local building standards and experiences, and environmental (including climatic) and other factors. Emphasis also was placed on preparation of preliminary drawings for all facilities to be financed under the project by a

respected international architectural firm with experience with Bank financed projects, to preclude the significant civil works problems encountered under the earlier Vocational and Technical Education Project in which excessive reliance was placed on the local Ministries of Public Works, which proved to have limited institutional capacity to guide this process. The selection and methods for procurement of educational equipment and furniture have been carefully assessed to ensure that detailed technical specifications are developed with participation of end users, high quality-low cost sources are identified and tapped, and comprehensive plans exist for operationalizing and pilot testing new equipment, and training teachers in their appropriate use. All these measures should considerably reduce the risk of repeating the serious problems in these areas encountered in the earlier OECS education project.

5. THE PROJECT

A. Project Objectives and Concept

5.1 The proposed Basic Education Reform Project responds to a request from the Government of Dominica to assist it in initiating a reform of its education system. The decision to focus the project on the basic, compulsory education cycle, and agreement on the scope of a possible project were reached over the course of extensive dialogue over the 1993-1995 period between Government officials and Bank staff. The actual project content was defined and the components prepared over the 1994-1995 period in discussions between the Government and the Bank with assistance from consultants financed by Policy and Human Resource Development funds from the Government of Japan.

5.2 The project has the overall objective of accelerating human resource development to ensure that the requisite manpower exists to attain the desired economic transition in Dominica. It supports the first stage of a major reform of basic education, aimed at improving the efficiency and effectiveness of the education system, and at enhancing equity of access to educational opportunities. Thus the project would: (a) strengthen the planning and institutional capacity of the MOE to guide and carry out the long-term development of the sector, while enabling it to initiate significant, urgent measures to address system-wide qualitative problems and expansion needs at the secondary level, and (b) serve as a catalyst for a major adjustment process, focused on revision to more reasonable levels of primary and secondary teacher to student ratios, in line with ratios of countries of comparable economic and social development. Such adjustment is critical to ensure that the relatively high levels of resource allocations to public education respond more effectively to current and projected needs, including increased financing for system management, instructional equipment and supplies, school facilities and equipment maintenance--areas which are now significantly under-financed. The planned adjustment is crucial to ensure the financial sustainability of the reform. An analysis of the impact of this adjustment is provided in the Appendix to Annex 3.

5.3 The project is based on the Government's sector development policy. At Negotiations, agreement was reached on the general content of an Education Strategy Letter from the Government to IBRD and IDA that would:

(a) outline the Ministry's strategy for strengthening the management and planning of the sector, including:
  (i) reorganization of the structure of the Ministry;
  (ii) the schedule of establishing new units with agreed functions and responsibilities, and
  (iii) accelerated action on the EPU and PMU to create and staff them with professionals with agreed qualifications;

(b) indicate the government's plans with respect to the adjustment of teacher to student ratios and the transfer of savings to strengthen management and the provision of instructional supplies and maintenance services to schools. (Annex 3 Appendix).

(c) elaborate the parallel policies that the Ministry would adopt to give full effect to the reform, including:

(i) policies on the standards for recruitment into the teaching profession and the teacher training programs;
(ii) criteria and procedures for the selection of persons to be awarded fellowships, and
(iii) the conduct and utilization of studies financed under the project,

B. Detailed Project Description

5.4 The project comprises three major components:

(a) A *Strengthening Management and Planning Component* would help to: (i) reorganize the management of the school system, upgrade staff, and improve coordination among key MOE operating units; (ii) build planning capacity and analysis and formulate a long-term sector development plan; (iii) initiate development of an integrated education data system to facilitate sector analysis, administration and management, and policy-making; (iv) establish a permanent project development and management capacity within MOE; and (v) finance special studies to assist in formulating future policies and program developments.

(b) A *Qualitative Improvement of Basic Education Component* would enhance the quality of teaching and learning, through: (i) upgrading basic teacher training and revising and intensifying in-service training for all teachers (with special attention to science, mathematics, social studies, and language arts) and, concurrently, ensuring their more appropriate utilization and job satisfaction through improved personnel supervision, management and career development; (ii) formulating and adopting improved curricula (especially in core subjects); (iii) establishing an educational testing and measurement capacity to monitor student and system performance; (iv) identifying and instituting more cost-effective methods of selection, production, procurement and distribution of educational materials; and (v) providing support for the acquisition of textbook and educational materials for the most disadvantaged schools (to include those serving the Carib territory). Further, this component would help strengthen the School Library Service (SLS) by intensifying its activities in the northern area of Dominica.

(c) An *Expansion and Conservation of School Places Component* would assist MOE to provide more secondary school places in the most under-served districts to reduce long distance travel and facilitate access to educational opportunities. The component would also provide for the rehabilitation of selected primary and secondary schools and support a new approach to systematic preventive maintenance and replacement of existing school plant.

Strengthening Management and Planning Component
(US$1 million equivalent of base costs or 15 percent of total base costs)

5.5 The MOE needs to review its organization, procedures and functions with a view to rationalizing the use of existing resources (human and financial) and improving its overall efficiency in

guiding the education system. As an urgent measure to facilitate improved education planning and directly support project implementation, the MOE would establish an Educational Planning and Development Section. The new section will comprise two units--an education planning and statistics unit (EPU) and a project management unit (PMU). The proposed new organizational structure of the MOE is provided in Annex 3, Chart 3.

5.6 Senior Management and Administration. The Government would establish two posts of Assistant Chief Education Officer (ACEO), each to coordinate one aspect of the technical services of the Ministry: one for planning and development, and the other for the school system. In order to strengthen the administration, the Government would also establish two posts of executive Officer, one for Accounting and the other for Personnel. The MOE will also add to its staff a Senior Education Officer (SEO) to coordinate Primary Education. In order to assist the MOE (i) to better rationalize and utilize sector resources; (ii) to identify and elaborate strategies to adapt, develop and modernize education system administration consistent with the evolution of the sector, including revision, as appropriate, of its laws and regulations; and (iii) to incorporate these strategies in the long term sector development plan, the project would provide:

(a) Expert services (4 months) to review the MOE management system and assist in the implementation of reforms, as needed, to rationalize its administrative ,organization and functions; to assess progress in its restructuring and provide recommendations for improvements in its structure, staffing, procedures, etc.;

(b) Study tours (4 months) for senior managers to review education reform processes in other countries and attend relevant seminars and courses in such areas as effective schools and education policy analysis;

(c) Civil works for office space; [8]

(d) Supplementary office equipment and supplies, to complement existing MOE equipment, and literature and reference material for professional updating on educational developments worldwide;[9] and,

(e) Selected studies on organizational and expenditure efficiency

5.7 Sector Planning. To meet the challenges presented by the education reform process, facilitate introduction of timely adjustments to the system, and foster closer interaction of education systems across the OECS, the project would assist in establishing a properly staffed EPU of the MOE responsible for planning ,statistics and research. The first tasks of EPU would include the preparation of a long-term sector development plan for the period 1996-2005, the establishment and maintenance of a data base concerning economic and social data for the sector, and the conduct of studies relating to the efficiency of the sector.

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[8] Construction of office space for all new and for some existing units on the grounds of the Teacher Training College. Office space requirements for the various units are detailed in Annex 5, Table 1.

[9] Relevant literature and reading materials needed for all institutional strengthening and quality improvement components are included under this area of project support. These materials would be consigned to the MOE Documentation Center for optimal organizing and accessibility.

To these ends, the project would finance:

(a) Fellowships (3 staff years) for three persons to pursue one-year advanced training, one in educational planning, one in statistics and one in the economics of education, financial analysis and operations research.

(b) Expert services (4 months, concentrated in the first two years of project implementation) to assist the EPU to identify and analyze key sub-sectoral and sectoral issues, establish approaches to long range planning and lay the groundwork for the long-term sector plan;

(c) Related office furniture, equipment and supplies, computers, related software and printers, and equipment maintenance;

(d) Local training[10] for staff in planning and statistics, and

(e) Selected planning and policy related studies and surveys, including expenditure efficiency and cost effectiveness in the sector.

5.8 Planning and policy-related studies and surveys would be carried out under the overall coordination of the EPU, and would include, for the first two years of project implementation, studies on: education and training implications of macro-economic and social development and labor market demands (including the relationship of curricular trends to the requirements of higher education and the labor market); teacher effectiveness and teacher attrition; and studies to support the analytical work of other units. Studies for the third through fifth years of project implementation would be identified and specified in the annual project work program, to be approved by IBRD/IDA.

5.9 Project Management and Development. A PMU would be established and maintained, with functions and responsibilities satisfactory to the Bank and the Association, for the purpose of *inter alia*: (a) coordination of project implementation; (b) project monitoring and evaluation; (c) preparation of the requisite annual and mid-term project reports ;and (d) implementation of the MOE development program. The PMU would absorb the existing Stores and Supplies and Maintenance units and would be headed by a full-time Project Manager, assisted by two other full-time professional staff, a Procurement Officer to oversee procurement, and an accountant to manage project accounts, and by clerical staff. The administrative and operating procedures to be adopted for execution of the Basic Education Reform Project would become, to the extent possible, the *modus operandi* of the MOE in the procurement of goods and works, so far as these do not conflict with Government procedures. The Government has agreed that the PMU will become part of the regular establishment of MOE for the implementation of sector development projects, programs, and plans.

5.10 To support strengthened project management and development objectives, the project would finance:

(a) Five months of study tours, seminars or attachments for key PMU staff to gain experience and skills in areas relevant to their responsibilities in the Unit, such as review of operations of Education Project Management Units elsewhere in the Caribbean (e.g.

[10] In general, where local training is to be financed under the project, eligible expenditures would include fees or honoraria for tutors/trainers where necessary, travel and any necessary per diem allowance, cost of preparing producing and procuring training materials and supplies and related transport costs.

Barbados, Jamaica and Trinidad & Tobago), and/or to attend World Bank or CDB seminars on topics such as disbursements, project accounting and procurement, and for short-term attachment of the Procurement Officer to a suitable procurement agency for training purposes;

(b) Expert services (8 months) comprising 6 months of services of a Project Management Expert to assist in project coordination and in setting up the PMU and establishing its procedures and 2 months of services of a Procurement Expert to assist the PMU team at critical points in the procurement process, and a lump-sum to help complete the auditing requirements of the Project;

(c) Related office furniture, equipment and supplies, including computers, related software, printers, photocopier, etc., a van and a truck under the control of PMU to serve the maintenance and procurement services, and equipment maintenance; and

(d) Selected project evaluation studies.

Qualitative Improvement of Basic Education Component (US$2.5 million equivalent of base costs, or 36 percent of total base costs)

5.11 The generally poor quality of primary education constrains many students from fully benefiting from a secondary education program, even when it is available to them. Hence, along with expanding access to secondary schools, thus increasing educational opportunities, the project assigns high priority to improving the quality of primary education, particularly in the core subject areas. This component, encompassing improvement of major educational inputs--teachers, curricula, educational materials, testing and measurement, and supervision--is expected to lead to significant improvements in educational outcome in terms of learning and student achievement.

5.12 To contribute to the objective of enhancing educational quality and to provide a basis for more effective participation of Dominica in the OECS Education Reform Strategy initiative, the project will support six closely integrated and inter-dependent areas, (i) School supervision, (ii) Educational Testing Measurement, (iii) Educational Materials Development, (iv) Curriculum Development, (v) Teacher Training, and (vi) the Schools Library Service.

5.13 School Supervision. The project seeks to strengthen the capacity of the school supervisory service to supervise and guide secondary schools and to better monitor and assist primary and secondary schools in such key areas as: (a) performance assessment of teachers, principals and schools, (b) in-service training and orientation of teachers and principals in school management concepts and effective school operations and, (c) efficient use of school resources, teachers, funding, and physical plant. The project would also provide for the establishment of a new District Education Office (DEO) in Castle Bruce to provide office space for use by the EO and for visiting MOE and TTC staff, a library for teachers and education staff, and a lecture room for seminars, workshops and meetings to serve teachers and principals. To support these objectives, the project would provide:

(a) Fellowships (2 staff years) for two persons to pursue advanced one-year training programs in school supervision, with particular attention to training in methods of promoting school effectiveness, coupled with brief attachments to relevant external agencies;

(b) Civil works for office space at the head office and construction of the DEO Office in Castle Bruce;

(c) Related furniture, equipment and supplies, including computers and software, for the headquarters school supervisory service and for the new DEO Office, and

(d) local on-the-job training courses for supervisors and principals to keep them abreast of system developments and reforms in planning, curriculum, testing, educational materials and teacher training, thereby helping to build the requisite support system for the reform process.

5.14 Educational Testing and Measurement. To expand and strengthen the current testing program of MOE, an Educational Testing and Examinations (ETX) Unit would be established. The Unit would: (a) be responsible, as at present, for the administration of the Common Entrance examination (CEE) and the JSP examination, and administration of external examinations, such as the CXC and the GCE; (b) improve the CEE and expand the testing program to include, at least, one national test within the primary cycle (about two years before the CEE) and one within the secondary cycle (at Form three level) to better measure student and school performance; (c) develop national norms and desired achievement standards; and (d) conduct research on student achievement and learning.

5.15 To directly support the new ETX Unit, the project would provide:

(a) Fellowships (2 staff years) for two persons to pursue one-year advanced training programs in Educational Testing and Measurement. A suitable short-term attachment subsequent to training (possibly at the Caribbean Examinations Council--CXC) would be arranged for the fellowship holders.

(b) Expert services (4 months) to assist in establishing the ETX Unit and in the design of the testing program;

(c) Office furniture, equipment and supplies for data analysis, word processing, scoring (including optical scanning), desktop publishing, and a van to be shared with the Educational Materials Unit;

(d) Funding for studies, including pilot testing of new tests, establishment of norms and standards of achievement and for school evaluation (including school-based continuous assessment), development of curriculum evaluation methodologies, and studies of learning differentials among students, and

(e) local on-the-job training, including item writing workshops as well as orientation seminars for principals and teachers in the interpretation and constructive use of test scores.

5.16 The civil works to accommodate the ETX unit will include the construction of a walk-in vault to enhance the security of tests and examination. The ETX would absorb the existing office of the Registrar of Examinations which would be strengthened by the addition of an Assistant Registrar.

5.17 Educational Materials Development. The project would also strengthen the capacity of MOE to prepare, produce and procure educational materials. With expert assistance, MOE would review cost-

effective options regarding preparation, publication, manufacturing and distribution of supporting materials and eventually textbooks, with a view to maximizing local (including private sector) participation in these processes, as appropriate. MOE would also adopt improved methods of textbook selection, standardizing and streamlining the number of textbooks per subject, to the extent feasible, as well as exploring additional measures to ease the financial burden of textbook purchase on parents. To expand access to text books by students of the most disadvantaged schools, and to provide teachers at primary and secondary level with text book supplies, the project would finance:

(a) The supply of a set of books in the core subjects from a list, to be agreed with the Bank and the Association, of not more than ten of the most disadvantaged primary schools (as measured by CEE performance) including the four Carib territory schools; and for selected small schools, where multigrade teaching would be necessary in the light of the proposed changes in teacher to student ratios;

(b) The provision of basic text books for teachers of the grades 1-9, in each primary and secondary school, and

(c) The supply of supplementary educational materials for selected secondary schools, especially to support the teaching of scientific subjects on the basis of a list of schools and equipment to be agreed with the Bank.

5.18 The project would specifically provide:

(a) Fellowships (2 staff years) for two persons holding degrees to pursue one year program of advanced training, one in general editing and publishing and the other in art editing and publishing, including in each case, subsequent attachment to an appropriate publishing house;

(b) Expert services (4 months) for two specialists as follows: (i) 2 months of assistance to help the MOE to reshape, as appropriate, its policy and role in regard to preparing, publishing and distributing educational materials and to evaluate and adopt, as appropriate, alternative methods of procuring materials, and (ii) 2 months of assistance to advise on educational materials production and desktop publishing. Both experts would train local staff in publishing and production tasks;

(c) Office furniture, equipment and supplies to support expanded and improved manuscript development, word processing and desk top publishing, etc., and equipment maintenance;

(d) Local training workshops for writers and illustrators; and

(e) Studies on the impact of books and materials on student performance and evaluation of procurement methods for books.

5.19 Curriculum Development. To provide the requisite technical expertise to continually review curricula and syllabi, with particular attention to the core subjects--mathematics,

language arts, social studies and science and to streamline the curricula, the project would strengthen the Curriculum Development Unit (CDU), by financing:

(a) Fellowships (4 staff years) for four persons to pursue one-year advanced level training programs in the design, research and evaluation of curricula, one recipient in each of the four core subject areas;

(b) Supplementary furniture, equipment and supplies, including computers, software, data storage equipment, printers for CDU and equipment maintenance;

(c) Local training, via workshops for teachers, principals and supervisors to be conducted by the returned fellows;

(d) Studies for the evaluation of the syllabi and curricula and the articulation of them between grades and cycles, and

(e) (i) a science kit, (ii) a mathematics kit, and (iii) a social studies kit for each of 50 primary schools, and related storage units for this equipment, to support improved teaching of syllabi at the school level;

5.20 Teacher Training. This sub-component seeks to improve teacher training at the basic and in-service levels and, thus, contribute to improved teaching through financing three principal types of investments:

(a) Fellowships (3 staff years) to train 3 persons in the training of teachers to strengthen the staff of the Teacher Training College (TTC) one in the field of Science, another in Social Studies and a third in Education

(b) Equipment and supplies at the TTC, for science and language labs, audio-visual aids, and library materials; and

(c) In-service training programs during the summer vacations for primary school teachers oriented toward content and teaching methods/pedagogy. The summer in-service training program would provide a systematic upgrading system for teachers at the basic level, to raise them to an acceptable level the competence in the four core subject areas. The scope of this program will be agreed upon in advance with the Bank on a year-to-year basis, as part of the annual project programming exercise. Overall, it is projected that the training program would serve about 300 teachers.

5.21 As part of the Government's effort to professionalize the teaching service, the TTC would require all new entrants into the two year diploma training program after 1998 to have at least four GCE "O" level or CXC equivalent passes, including English, Mathematics, a Social Studies subject and a Science subject. Moreover, by the year 2000, all teachers in the primary schools who have not secured at least four CXC or GCE "O" level passes or the equivalent in each of the four core subject areas would be reassigned either to other suitable public service jobs or, if they have demonstrated special ability to work with young children, to the Pre-School system.

5.22 School Library Service. The project aims at intensifying the SLS bookmobile visits to the Primary Schools, by providing an additional bookmobile to complement the activities of the bookmobile

that the now operates from Roseau. A Schools Library Center in Portsmouth would provide the base for the new bookmobile service to the schools in the North and this Center would serve the schools in Portsmouth as well. To this end, the project would finance:

(a) Fellowships (5 staff years) to train (a) one person to pursue a 3 year degree in librarianship, and (b) two persons each to attend a one year course to be trained as library technicians, and a study tour (4 staff weeks) for the Chief Librarian to visit school library services in other countries;

(b) Construction of a Schools Library Center (including a garage for the bookmobile in Portsmouth;

(c) Related equipment, furniture and supplies for the Portsmouth center, and a new bookmobile with 4000 book capacity, spare parts, and maintenance;

(d) Studies on the impact of reading on student performance, and

(e) Local workshops for teacher librarians on the use of the library in teaching.

Expansion of Access to Schools Component (US$3.9 million equivalent of base costs, or 49 percent of total base costs)

5.23 The school mapping exercise, conducted during project preparation, highlighted the importance of redressing serious shortfalls in secondary school places, while achieving a more equitable geographic distribution of such places and improving primary to secondary transition rates. The project would expand access to secondary education. This additional space, coupled with more efficient use of existing space is expected to permit primary to secondary transition rates to rise to around 63 percent by the Year 2000. The project would also assist MOE to rehabilitate selected existing primary and secondary schools in urgent need of such attention.

5.24 To these ends, the project would finance:

(a) civil works, furniture and equipment, and equipment maintenance for (i) a new 525 place secondary school to increase coverage in a presently un-served area, Castle Bruce, and (ii) classroom space (including 13 classrooms, 7 of which would replace existing unsuitable rooms), a science laboratory and a toilet block at the existing secondary school in Portsmouth;

(b) rehabilitation of selected schools with urgent needs, identified as priority items in the 1994/95 school facilities study, and

(c) preparation of a Master Plan for the development of the campus of the Portsmouth secondary school by the architectural consultants.

5.25 The schedule of accommodation of the works to be undertaken under (a) above is provided in Annex 5.. To complement project-financed activities, the Government, via the MOE, would undertake the systematic training of principals and vice-principals in managing preventive maintenance and mobilization of community support for maintenance. The program of rehabilitation of selected schools

would be agreed annually by the Bank and the Association prior to the commencement of its implementation. The Government would ensure either (a) public access to any public school constructed on church lands or (b) public ownership or lease of the lands for the construction of such schools.

6. PROJECT COST AND FINANCING PLAN

A. Project Costs

6.1 The total project cost is estimated at US$7.9 million equivalent, including duties and taxes (US$0.5million equivalent) and physical and price contingencies. The foreign exchange component represents US$6.1 million equivalent, or 77 percent of total project cost. A summary of project costs by major component is provided in Table 6.1. As a percentage of base costs, financing for the three major components is as follows: Strengthening Management and Planning (15), Qualitative Improvement (36), and Expansion and Conservation of School Places (49). Detailed cost tables are provided in Annex 6, Table 1A-1D.

6.2 The cost estimates are based on prices as of June 1995. To the base cost of the civil works, 12 percent has been added to cover the costs of professional, consultant services, to meet the needs for architectural design and tender preparation, and contract administration.

6.3 Contingency Allowances. Total contingencies of US$1 million equivalent represent 15 percent of baseline project cost. These include physical contingencies of US$0.65 million equivalent, averaging 10 percent across the discrete components. Price contingencies (US$0.4 million equivalent), represent 6 percent of project baseline cost, and are based on the following assumptions: (a) a local inflation rate of 2.2 percent in 1995, and 2.0 percent per year thereafter; and (b) price increases for foreign costs, estimated in US dollars, of 3.3 percent in 1995, and 2.7 percent for the remaining four years of project implementation. Cost calculations also assume a nominal, constant exchange rate of EC$2.7 to US$1.00 for the five-year project implementation period.

Table 6.1: **Total Project Costs**

	(US$ '000)			Foreign	Base
	Local	Foreig	Total	Exchange	Costs
A. Strengthening Management and Planning	215	761	1,044	79	15
B. Qualitative Improvement	435	2,070	2,505	83	36
C. Expansion and Conservation of School Places	903	2.445	3.348	73	49
Total BASELINE COSTS	1,522	5,345	6,897	77	100
Physical Contingencies	173	479	652	73	9
Price Contingencies	96	295	391	75	6
Total PROJECT COSTS	1,822	6,119	7,940	77	115

B. Recurrent Costs and Project Sustainability

6.4 Incremental Recurrent Costs. The recurrent cost (not including incremental debt service) generated by this project is estimated to be US$1.2 million per year by the end of the decade in current prices. Estimates of these incremental recurrent costs are presented in Annex 6, Appendix. These additional costs are attributable mainly to: (a) new positions in the MOE Establishment including the library service and related travel and office and general expenses; (b) increased allowances for materials and supplies and for operations and maintenance in primary and secondary schools and for the expanded School Library Service (SLS); (c) additional costs of maintaining the equipment and furniture supplied under the project, (d) the costs related to additional 735 secondary school places provided by the project; and (e) cost of maintenance of the new buildings, including new school places, the DEO office in Castle Bruce, MOE building and Library building in Portsmouth.

6.5 These incremental costs will be offset by about US$1.4 million equivalent in savings projected to be generated by 2000 from the downward adjustments in the teacher to student ratios planned for the 1996-2001 period (Annex, the Appendix). In other words, the project will achieve a net decline in recurrent expenditure on the sector.

6.6 Project Sustainability. The new Government has confirmed its support of the project, with planned qualitative improvements and expansion of access to education widely viewed as essential to achieve desired economic growth and social development objectives. Requisite Government financing for the project, including its contribution of US$1.3 million equivalent (net of taxes) and incremental debt service associated therewith, can be met, as they represent less than 1 percent of the 1994 GDP. Further, there are no net annual incremental recurrent costs to be generated by the end of project implementation, (Table 6.2).

Table 6.2. **Average Annual Fiscal Implication of the Proposed Basic Education Project**
(In Percent of GDP)

	1996-2000	2001-2010
Estimated Incremental Recurrent Cost	.00	.00
Incremental Debt Service	.02	.11
Total Incremental Cost	.02	.11
Memorandum item:		
Public Sector Current Surplus	3.2	3.0

6.7 Dominica is eligible for borrowing from IBRD under Single Currency Loan (SCL) terms because: (i) it has no unconverted VLR82 loans, and (ii) the proposed loan does not exceeds US$100 million, although it represents 100 percent of IBRD lending program for FY 1996. Presented with the choice of loan product, the Government decided on the fixed exchange rate US dollar SCL option. This choice was based on the effort of eliminating exchange rate volatility (the EC dollar is pegged to the US dollar) and minimizing interest rate uncertainty for a social sector project such as the proposed one.

6.8 The technical assistance program included in this project, detailed in Annex 7, Table 2, has been designed to maximize development of local expertise and capacity in order to sustain project benefits well into the future. The mix of expert services and fellowships, structured to complement one another, emphasizes staff development. Orientation seminars and study tours have been included to familiarize senior staff with key aspects of educational reform. Eligibility criteria for all project-supported training will be specified in a Project Implementation Manual (PIM) (Para. 7.2). Fellows will be selected with attention to their capacity to benefit from the respective training program and the program will be tailored to their job needs in Dominica and be complemented in several cases by short attachments to relevant agencies or entities abroad. These fellows will be drawn largely from the public service (teaching and the civil service). Their job experience will sharpen awareness of their own training needs. In keeping with normal Government policy, all fellows will be bonded to serve for an appropriate duration of time following their training. Upon completion of training and return to Dominica, all fellows will be expected to produce reports on their training experience and to conduct seminars to disseminate their newly acquired knowledge to others. Most of the expert services will be provided in a series of short term consultancies, with these services timed in order that: (a) while local staff remain in direct control of operations, they will receive external assistance at certain critical junctures; and (b) the tenure of fellowships and expert service periods are optimally synchronized. Finally, all experts will be required to train staff and to prepare manuals to help guide staff in how specific key tasks should be organized and programmed.

C. Financing Plan

6.9 The proposed project would be financed by an IBRD Loan and an IDA Credit totaling US$6.1 million equivalent, representing 77 percent of the total project cost. The combined Loan and Credit would cover 100 percent of total foreign exchange investment expenditures and 50 percent of local investment expenditures for goods. The Government would finance US$1.8 million equivalent or 100 percent of all local investment costs (net of taxes), except for goods financed at 50 percent of their local investment costs, and 100 percent of local and foreign recurrent costs, and US$0.5 million equivalent in taxes.

6.10 Table 6.3 provides a summary of the project financing plan. Annex 6, Table 2A includes the detailed financing plan by component. The phasing of the Government financing and the Government's inclusion of the required amounts in "Dominica Annual Estimates of Expenditure" for the years 1996 through 2000 are both to be addressed in the ESL (Para. 5.4). The Government would provide the official Annual "Estimates" for the years 1996 through 2000, the necessary minimum equivalent amounts of project financing required for project implementation[11], estimated to be: US$2.7 million in 1996; US$2.7 million in 1997; US$0.8 million in 1998; US$1.4 million in 1999; and US$0.3million in 2000.

[11] The amounts per fiscal year are the following: US$1.4 million for FY1995/96; US$2.7 million for FY1996/97; US$1.7 million for FY 1997/98; US$1.1 million for FY 1998/99; US$0.8 million for FY 1999/00; US$0.2 million for FY 2000/01

Table 6.3: **Financing Plan** (US$ millions)

	IDA/IBRD		The Governmen		Total	
	Amount	%	Amoun	%	Amoun	%
A. Strengthening Management and Planning	0.9	80	0.2	20	1.1	15
B. Qualitative Improvement	2.3	83	0.5	17	2.8	35
C. Expansion and Conservation of School Places	3.0	73	1.1	27	4.0	50
Total Disbursement	6.1	77	1.8	23	7.9	100

6.11 Retroactive financing up to SDR 410,000 (US$ 614,000 equivalent), or 10 percent of combined IBRD and IDA project financing, would be provided to reimburse the Government for eligible expenditures incurred after October 1995, to enable the Government to immediately commence requisite steps to expedite the reform process, including: (a) equipping of the newly established PMU, training of its staff in such general areas as procurement, and Bank-specific procedures , and provision of study tours for them to visit other project units in the Caribbean and of expert services to assist in operationalizing the Unit and formulating the PIM; (b) architectural design works and tenders preparation for the civil works; and (c) preparation of lists and specifications for the equipment and furniture to be procured under the project. This retroactive financing is required to permit these important outlays to be eligible for consideration for immediate reimbursement upon Loan and Credit Effectiveness.

7. PROJECT IMPLEMENTATION

A. Project Management and Coordination

7.1 The project would be executed by the MOE through the creation of the PMU with functions and responsibilities satisfactory to the Bank and the Association, with at least three full-time professional personnel-a Project Manager, Procurement Officer, and an Accountant-with qualifications satisfactory to the Bank and the Association, assisted by sufficient numbers of support staff.

7.2 In implementing the project, the PMU and other entities involved in project execution would be guided by the Project Implementation Manual (PIM). The PIM, the final content of which will be agreed with the Bank and the Association, will include the following main items: (a) organizational arrangements, including specific relationships and responsibilities for project execution; (b) the content of all the components and sub-components of the project; (c) operational procedures (both Government and Bank as appropriate) for the procurement of goods, works and services to be followed in project implementation, including criteria for: rehabilitation of schools; eligibility for, and processing requirements relating to, project-supported training (fellowships, in-service and study tours) and reference to the Bank' Guidelines for the use of consultants; and selection of planning and policy-related studies (d) a timetable delineating targeted completion dates for the project components, including the planning and policy-related studies; (e) disbursement and procurement arrangements, including reference to the standard bidding documents to be used for works and goods, and standard consultant contracts; (f) financial management and control arrangements, including Terms of Reference (TORs) and schedule for internal and external project audits and project monitoring and evaluation; (g) agreed project monitoring and evaluation indicators, to guide assessment of project implementation performance during the Annual and mid-term Project Reviews; (h) TORs for the staff of the PMU and all the experts to be employed under the project and (i) such other matters as may be agreed between the Government and the Bank and the Association. As a condition of Loan and Credit Effectiveness, the Government will be expected to have ensured that the agreed PIM had been issued, in terms satisfactory to the Bank and the Association, and provided appropriate assurances that the Manual is in full force and effect.

B. Institutional Arrangements

7.3 As a source of advice and counseling during project implementation, a Project Advisory Committee (PAC) will be established with representation from the Ministries with responsibility for the portfolios of Education, Finance, Personnel and Public Works. The Project Manager would serve as Secretary. The PAC will meet periodically to review implementation performance and will be convened, as needed, to address any urgent matters which might arise over the course of project execution. To ensure achievement of project objectives, the MOE will need to collaborate closely with several other government entities, including the Ministry of Finance, a representative of which will countersign all applications for withdrawal of the proceeds of the Loan and Credit.

C. Implementation Program

7.4 The project would be implemented over the five-year period 1996-2000, with some front loading because of the urgency of having the fellowships begin as soon as possible and the fact that the preparatory architectural work would begin early under Japanese Grant financing. An Implementation Schedule, by component and sub-component, is presented in Annex 7, Table 1. The project Completion Date would be December 31, 2000, and the Closing Dates for the Loan and Credit would be June 30, 2001. Civil works execution, overseas fellowships, and provision of expert services are heavily concentrated over the first and second year of project implementation (or over the second and third fiscal years) in order to ensure that these key inputs are rapidly completed . At the same time, the requirement for capital outlays on the part of the Government as well as the project impact on the recurrent budget have been kept at reasonable levels taking into account the severity of the fiscal constraints in Dominica over the next 1-3 years.

7.5 Not later than six months after the Closing Date or such later dates as may be agreed for this purpose, government will (i) prepare and furnish to the Association and the Bank a plan of such scope and detail as IDA and IBRD may reasonably request for the future operations of the Project, (ii) exchange view with IBRD and IDA on such plan, and (iii) carry out such plan, taking into account IBRD and IDA comments on it.

D. Procurement

7.6 Part XIII of the Government's Financial (Stores) Regulations prescribes guidelines for "The purchase of Stores, etc., and the tenders procedure for Supplies". In practice, these regulations are applied by the whole public sector to the procurement of goods and works at large. Goods and supplies whose contract value exceeds EC$1,000 are to be procured through a public tendering procedure with at least three bidders, and contracts are awarded by a Public Tendering Board (PTB). In the case of contracts for the provision of works, the bidders must pre-qualify and the MOW is usually charged with the responsibility for the technical evaluation of bids, although, for large projects, or whenever it is required by external financiers, a private independent consulting firm is contracted to this end. These regulations and procedures appear to grant a sufficient degree of transparency to the procurement process. However, they are in need of updating and revision, especially in light of the limited exposure of the public sector in Dominica to the requirements of large projects and international procurement and financing.

7.7 While civil works for education sector projects in many countries have usually been procured with only minor problem, the procurement of instructional materials and equipment has proven difficult. Some of the more common and costly problems that occur during procurement of instructional equipment in various countries are: (a) limited technical knowledge of optimum types and sources of educational equipment, materials, supplies, and hence difficulties in writing precise and appropriate technical specifications; (b) inexperience in packaging contracts to obtain potential economies of scale of purchase; (c) difficulties in appropriately timing the placement of orders in order to synchronize delivery dates with the actual time that the given goods will be required, particularly to coincide with the state of readiness of civil works; (d) limitations in the capacity to conduct of technical evaluation of bids; (e) insufficient attention to inspection of goods and bills of lading upon arrival of procured items; and (g) the virtual neglect of enforcement of insurance and warranty clauses.

7.8 Several steps have been taken to avoid such problems in this project. First, prior to commencement of project implementation, the full-time Procurement Officer will receive intensive, practical training, and attend relevant Bank-seminars. Two officers of MOE attended the three day project launch workshop held in June 1995 in St. Lucia for a series of projects including the St. Lucia Basic Education Reform Project. Second, specialized expert services will be provided at critical points in the procurement process, particularly in the first stages of project's implementation, to assist (as well as to further train) the Procurement Officer in areas such as bidding technical specifications, processing and evaluation. Third, to guide and expedite the procurement process, specification lists for goods to be procured with project financing, and bidding documents for civil works and goods based on standard Bank documents, will be prepared according to the Implementation Program. To further advance preparation of civil works, architectural designs will be completed with Japanese Grant and retroactive financing (Para. 6.10), in order to permit initiation of the actual bidding process immediately upon declaration of Loan and Credit Effectiveness. The Government would employ a firm of architectural consultants, to provide architectural services and to coordinate other professional services required for civil works, both experienced with the region and with Bank financed projects.

7.9 The designation of a full-time Procurement Officer to the PMU responds directly to the experience gained in the OECS Regional Vocational and Technical Education Project (Credit 1785-CRG), in particular the need for constant, careful attention to detailed selection and specifications of goods (i.e., furniture and educational and related equipment and materials) to be purchased, and to contracting procedures, ensuring: (a) upstream, compliance with Bank guidelines for selection of consultants and consulting firms, and for procurement of civil works and goods; and (b) downstream, that acquired goods meet the specifications and that equipment is appropriately and safely installed and utilized.

7.10 Procurement procedures to be followed for all major categories of expenditures to be financed by IBRD and IDA are described below and summarized in Table 7.

(1) Civil Works

7.11 Civil works to be procured with project financing (expected to total US$4.2 million equivalent, including contingencies) consist of the following: (i) one new secondary school, of 525 places in Castle Bruce, and the upgrading and expansion of the Portsmouth Secondary School (representing a net addition of 210 places); ii) rehabilitation of selected primary and secondary schools; (iii) one new District Office in Castle Bruce; (iv) new School Library Center in Portsmouth; and (v) office space for new MOE management and technical units.

7.12 In view of the small value of all such works, the Bank Standard Bidding Documents (SBD) to be used for International Competitive Bidding (ICB) would be "Procurement of Works Smaller Contracts" and these same documents, modified as necessary, would be used for National Competitive Bidding (NCB). Civil works, including those for the rehabilitation of selected schools, would be grouped in packages as far as it is practicable. All civil works contracts valued at US$0.5 million and above would be awarded on the basis ICB, consistent with IBRD and IDA guidelines[12]. Civil works estimated to cost the equivalent of US$100,000 or more but less than the equivalent of US$0.5 million per contract, up to an aggregate amount equivalent to US$1.0 million, may be procured on the basis of NCB. Civil works

[12] Guidelines: Procurement under IBRD Loans and IDA Credits. The World Bank , January 1995.

(including works for rehabilitation of selected schools), estimated to cost less than the equivalent of US$100,000 per contract, may, consistent with IBRD and IDA guidelines and up to an aggregate amount equivalent to US$0.8 million, be procured under lump-sum, fixed price contracts awarded on the basis of quotations obtained from three qualified contractors in response to a written invitation and made to the contractor who offers the lowest price quotation and has the experience and resources to complete the contract successfully. All school rehabilitation works would require full documentation to include: certification by the MOE that the works were of a priority nature, consistent with the school facilities inventory; an approved budget for the subject work; review by the consultants for civil works of designs and/or bidding documents prior to initiating any such works, and certification by the consultants for civil works that the work was efficiently, fully and satisfactorily completed; and appropriate documentation of local shopping procedures applied in the selection of contractors, all of which documentation would be retained for review by IBRD and IDA supervision missions. No individual school would normally be expected to receive rehabilitation works in excess of an aggregate amount of US$100,000 equivalent.

(2) Goods

7.13 School and Office Equipment (estimated to cost US$363,000 equivalent including contingencies) Furniture (US$297,000), Vehicles (US$185,000), Textbooks and other educational materials (US$404,000) and Office Supplies (US$276,000)would be grouped in packages as far as practicable and procured in the following manner consistent with Bank guidelines:

(a) Contract packages estimated to cost the equivalent or more than US$50,000 or more would be procured on the basis of ICB;

(b) Contract packages estimated to cost US$15,000 equivalent or more but less than US$50,000 equivalent and US$900,000 equivalent in the aggregate, would be procured through international shopping procedures, and

(c) Contract packages estimated to cost less than US$15,000 equivalent and US$300,000 equivalent in the aggregate, would be procured through national shopping procedures.

7.14 Computer hardware and software (expected to total US$244,000 equivalent, including contingencies)would be grouped, to the extent possible, in packages estimated to cost the equivalent of US$50,000 or more and procured through Limited International Bidding (LIB) procedures. Exceptionally, and with previous Bank no objection, packages of small value may be procured through shopping procedures.

7.15 Bidding lists of eligible bidders for computers and software and for vehicles would include only manufacturers who have established maintenance and service facilities in Dominica or in neighboring countries.

Table 7.3 Procurement Arrangements

Dominica
Basic Education Project
Procurement Arrangements - Non ICB/LCB Aggregated as Other
(US$ Million)

	Procurement Method				
	International Competitive Bidding	Natrional Competitive Bidding	Other	N.B.F.	Total
Civil Works					
Construction /a	2.4	1.0	0.8	-	4.2
	(1.7)	(0.7)	(0.5)		(2.9)
Goods					
Computers and Software /b					
Computers and Softw.	-	-	0.2	-	0.2
			(0.2)		(0.2)
Other Goods /c					
(other equipment, furniture, text-books	0.3	-	1.2	-	1.5
educ. materials, vehicles, supplies)	(0.3)		(1.1)		(1.4)
Technical Assistance					
Works Design/Eng./SPN	-	-	0.4	-	0.4
			(0.4)		(0.4)
Experts /d	-	-	0.4	-	0.4
			(0.3)		(0.3)
Fellowships /e	-	-	0.7	-	0.7
			(0.6)		(0.6)
Studies /f	-	-	0.1	-	0.1
			(0.1)		(0.1)
Training /g	-	-	0.2	-	0.2
			(0.1)		(0.1)
Maintenance					
Equipment	-	-	-	0.1	0.1
Total	2.7	1.0	4.1	0.1	7.9
	(2.0)	(0.7)	(3.4)	-	(6.1)

Note: Figures in parenthesis are the respective amounts financed by IBRD/IDA

Explanation for the methods used under category "Other":

\a Contracts valued at less than US$100,000: Lumpsum or Fixed Price Procedures consistent with Bank Guidelines, up to an aggregate amount of US$0.8 million

\b LIB (contracts at or above US$50,000) from manufacturers with established service and maintenance in the Caribbean area

\c International Shopping (contracts valued US15,000 or more but less than US$50,000 and US$0.9million in the aggregate). and National Shopping for contracts valued less than US$15,000 and US$ 300,000 in the aggregate

\d According to Bank's Guidelines for the Use of Consultants

\e List of candidates subject to Bank's approval

\f According to Bank's Guidelines for the Use of Consultants

\g According to Bank's Guidelines for the Use of Consultants

(3) Technical Assistance

7.16 Professional service contracts (expected to total US$442,000 equivalent including contingencies) for architectural design, tendering, and supervision/administration of contracts relating to

the execution of IBRD and IDA-financed civil works would be procured according to Bank guidelines for the use of consultants.[13]

7.17 Expert Services (expected to total US$428,000 equivalent, including contingencies), to include contracts for consultants and consulting firms, would be awarded in accordance with the World Bank guidelines for the use of consultants. Details of project-financed Expert Services are provided in Annex 7, Table 2.

7.18 Fellowships (expected to total US$675,000 including contingencies) would be awarded only to persons suitably qualified to enter upon the agreed training programs, following Government selection procedures acceptable to the Bank. Details of Fellowships are provided in Annex 7, Table 2.

7.19 Local Training (expected to total US$157,000 including contingencies) would be jointly arranged by the specialized service of MOE concerned and the PMU. Trainers would be selected in consultation between the concerned MOE unit and the PMU.

7.20 Studies (expected to total US$143,000 equivalent, including contingencies). With reference to studies, the PMU and the concerned department would consult on the selection of consulting services and the PMU would procure these in keeping with IBRD and IDA guidelines. For any necessary materials in view of the small amounts involved, local shopping would be used.

(4) IBRD and IDA Review

7.21 Agreement was reached that the Government would : (a) prior to initiating any civil works or acquisition of goods to be procured through ICB or LIB, and for those civil works to be procured via NCB, submit to the Bank and Association for prior review all relevant documentation; (b) with regard to consultants and consulting firms, submit all proposed contracts and related terms of reference, short lists of candidates, proposed fees, etc. for prior IBRD and IDA review to ensure consistency with Bank guidelines on use of consultants; and (c) to ensure consistency with project objectives, submit the names and resumes of all shortlisted candidates for fellowships, the proposed training program and training institution, and estimated cost for prior IBRD and IDA review. The budget for local training and for studies would be agreed with the Bank and IDA in advance of initiating such activities and all relevant documentation concerning expenditures on agreed studies and training would be retained for review by IBRD and IDA supervision missions. For all procurement of goods and works not requiring prior review from the Bank and the Association, all relevant documentation would be retained in PMU files by IBRD and IDA supervision missions. Prior review coverage as a percentage of Bank-financed contracts is estimated to amount to about 60 percent of goods and works contracts and 100 percent of consultants contracts.

E. Disbursements and Accounts

7.22 The proposed Loan of US$3.07 million equivalent and Credit of SDR2.1 million (US$3.07 million equivalent), would be disbursed over a five-year period or ten semesters, typical of other IBRD and IDA-supported social sector projects. Table 7.4 presents the disbursement forecast for the Loan and

[13] Guidelines: Use of Consultants by World Bank Borrowers and by The World Bank as Executing Agency. The World Bank, August 1981.

Credit. Disbursements would commence immediately at Loan and Credit Effectiveness with the disbursement for retroactive financing and the initial disbursement into the project Special Account. To facilitate timely project implementation, the Government would establish, maintain and operate, under terms and conditions satisfactory to IBRD and IDA, a Special Account in US dollars at a bank acceptable to IBRD and IDA. The Authorized allocation for the Special Account would be US$0.5 million equivalent, with an initial deposit to be made of US$0.25 million equivalent, and such allocation to remain limited to an amount equivalent to US$0.25 million until the aggregate amount of withdrawals from the Credit Account, plus the total amount of all outstanding special commitments entered into by the Association, shall be equal to or exceed the equivalent of US$1.0 million . The Special Account would be managed by the Project Management Unit (PMU), with all disbursements made under authorized signatures from designated representatives of both the Ministry of Finance and the PMU, and withdrawal applications for replenishment of the Special Account would be prepared by the PMU in accordance with Bank policies and procedures.

7.23 The Government would open a Project Account in a bank acceptable to IBRD and IDA and deposit into such account an amount equivalent to not less than US$250,000, for purposes of financing the implementation of the project and would maintain a positive balance in such account over the project implementation period, in the amounts stipulated in the Development Credit Agreement.

Table 7.4: **Disbursement Plan**

Semest.	Project Costs	IBRD/IDA Amount US$	The Government Amount US$
1	1,368,652	1,107,128	261,524
2	1,368,652	1,107,128	261,524
3	1,339,803	1,044,319	295,484
4	1,339,803	1,044,319	295,484
5	404,838	303,716	101,123
6	404,838	303,716	101,123
7	688,209	499,252	188,956
8	688,209	499,252	188,956
9	168,562	115,831	52,730
10	168,562	115,831	52,730
Total	7,940,126	6,140,491	1,799,635 (*)

(*) US$ 1.3 net of taxes

7.24 Annex 7, Table 4 contains the projected Loan and Credit disbursement allocations. Disbursements would be effected against the following expenditure categories, by percentage of IBRD and IDA financing: (a) civil works, for construction of the new secondary school at Castle Bruce and the expansion of the Portsmouth Secondary School, the new District Education Office at Castle Bruce, and Schools Library Center in Portsmouth, and office space for the MOE management and technical units and for professional fees related thereto for design, tender preparation and contract administration-- 100 percent of foreign expenditure net of taxes(or 72 percent of total expenditure) (b) civil works for rehabilitation of selected primary schools and professional fees related thereto--100 percent of foreign expenditure net of taxes (or 72 percent of total expenditure); (c) goods including all equipment, furniture, educational materials, computers and software, and supplies and miscellaneous--100 percent of

foreign expenditure and 50% of local expenditure net of taxes (or 95 percent of total expenditure); (d) technical assistance, including (i) expert services, (ii) fellowships, (iii) training and (iv) studies--100 percent of foreign expenditure net of taxes (or 75, 95, 50 and 50 percent respectively of total expenditure).

7.25 Withdrawal applications for civil works with a contract value of US$100,000 or more equivalent and for goods with a contract value of US$50,000 or more equivalent, would be supported by full documentation. Disbursements for all contracts for civil works of less than US$100,000 equivalent, including works associated with the rehabilitation of primary schools, and for contracts for goods of less than US$50,000 equivalent would be made on the basis of Statements of Expenditure (SOEs) certified by the PMU. Supporting documentation for these latter expenditures, as delineated in paragraph 7.23, would be retained by the PMU, and be readily available for periodic review by IBRD and IDA supervision missions.

F. Financial Management, Accounting and Audits

7.26 An evaluation of existing financial management procedures and the accounting systems and administrative controls of MOE was carried out by the Bank. It was noted that the country's financial management system is highly centralized, with the Government Treasury responsible for general financial control of the entire executive branch. At the level of the MOE, financial activities are limited to providing information in accounting format to the MOF, for payment and final accounting purposes. The existing financial management procedures in MOE would require strengthening over the medium-term in order to support the modernization of the administration of the MOE. Improvements are needed in accounting, budgeting, and financial planning and analysis. To these ends, the project supports (a) training in financial analysis, operations research and economics of education for a person who will be assigned to the EPU to conduct efficiency studies related to the cost and financing of education, and (b) the establishment of an integrated, computerized education data system that would include financial records. The PIM will provide detailed TORs for internal and external audits of project accounts satisfactory to the IBRD and IDA. MOE would also strengthen its financial management operations by adding an executive officer (Accounts) to its staff.

7.27 The technical review conducted during the preparatory phase further concluded that the Government Audit Department has the required independence to meet Bank audit requirements, as it reports directly to Parliament. With regard to its technical capacity, senior staff have been exposed to several audits of externally financed projects.

7.28 The MOE would keep separate accounts for project incurred expenditures according to the proposed Charts of Accounts (as detailed in Schedule I of the Loan and Credit Agreements) and prepare a monthly statement of expenditures. This procedure will facilitate the preparation of withdrawal applications and expedite the disbursement process. Annual audits of all project accounts, including the Special Account, will be undertaken by an independent auditor. Initially, it is proposed that this independent auditor be the Government Audit Department. The requisite audit reports would be prepared and submitted to the Bank and Association not later than four months after the end of each fiscal year[14] (i.e., not later than October 30) under TORs satisfactory to IBRD and IDA. Should the

[14] Fiscal year runs from July 1 to June 30.

Government Audit Department prove unable to carry out such audits in a timely fashion, the Bank and the Association would require the use of a private sector firm.

G. Project Monitoring and Evaluation

(1) Project Performance Reporting

7.29 Overall responsibility for monitoring, evaluation and reporting of project performance would be assigned to the PMU. The PMU also would be responsible for the preparation of the Borrower's section of the Implementation Completion Report (ICR) that would be transmitted to the IBRD and IDA not later than six months after the Closing Date. To ensure and expedite fulfillment of periodic reporting requirements relating to project implementation status, and to facilitate the conduct of regular project supervision missions, the PIM will schedule consolidated project progress reports to be prepared by the PMU by September 30 and March 31 each year, and these would be distributed to IBRD and IDA, and to CDB for information. The March 31 report would serve as the basis for an annual in depth review of project performance to be carried out by the Government, IBRD and IDA.

7.30 The annual March 31 project status report will include: (i) a summary of the project performance over the past year, measured against agreed project monitoring and evaluation indicators, delineated in Annex 7, Table 5; and (ii) a detailed work program and budget (including planned contracting of expert services and initiation of planning and policy-related studies) for the forthcoming year of project implementation, and a realistic implementation schedule and targets for moving the project toward its successful completion.

(2) Project Reviews

7.31 Annual reviews of project performance would take place no later than May 31 each year of the 1997-2000 period between the IBRD and IDA and Government. A joint mid-term Review of the performance of the Basic Education Reform Project and the education reform process which it supports would be undertaken not later than June 30, 1998. For such review, the PMU would prepare, and jointly IBRD, IDA and the Government would review a summary report including assessment of: (a) the overall implementation performance of the project during its first two-and-one-half years in terms of its progress toward achieving the agreed project objectives, targets and indicators; (b) the adequacy of available and planned project financing; (c) compliance with IBRD and IDA procurement and disbursement requirements, and (d) the outcome of the annual audit reports. Subsequent to this review, a plan of action to guide the successful completion of the project will be prepared. A Project Supervision Plan is provided in Annex 7, Table 6. As part of such Annual Review, the MOE may be asked to prepare an action plan, satisfactory to IBRD and IDA, to make adjustments in project implementation, as the review process may indicate to be needed to achieve project objectives. In such case, the Government should furnish this action plan to IBRD/IDA no later than one month after conclusion of the respective review, and shall thereafter carry out such action plan in accordance with its terms. The Government would indicate in the PIM its intention to comply fully and in a timely manner with the Project reporting and review requirements, all of which would be incorporated in the PIM.

H. Project Supervision

7.32 During supervision missions, which will be timed so as to follow closely upon the half yearly reports, the Bank and Association will:

(a) review the achievements in project implementation against the Monitoring and Evaluation indicators as set out in Annex 7 Table 5 and covered in the half yearly report;
(b) assist in resolving problems that have emerged since the previous supervision mission;
(c) discuss any changes in policy or the functioning of the sector that have a bearing on the project and project implementation and;
(d) review selected documents retained in project files pertaining to procurement of goods and works.

In particular, as the following activities are ongoing, the supervision missions will pay special attention to:

(i) the adjustment of teacher to student ratios, the changes in the ratio of salary to non salary expenditures, and the application of resources to school maintenance and supplies;
(ii) the preparation and processing of the long range sector plan;
(iii) the strengthening of management and planning in MOE, including project management capacity;
(iv) the program of studies, and
(v) the quality of expert services provided.

7.33 As this project will be a first effort of the kind in the sector in the country and the investment is front loaded, the visits of supervision missions will be more frequent in the early stages: every four months in the first year of implementation, every six months thereafter, each visit involving a total of about 3 staff days. Other ad hoc missions or a longer stay in the field may be necessary for the resolution of specific problems that may arise

I. Environmental Impact

7.34 The proposed project does not represent environmental risks. It has been assigned a "C" environmental classification.

8. EXPECTED BENEFITS AND RISKS

A. Benefits

8.1 The proposed project would significantly increase educational opportunities, particularly for students from the more remote areas. An additional 735 children, or an increment of 10 percent of the public secondary school places, will have access to secondary education via project-financed civil works. Major improvements are expected in education provided throughout the compulsory cycle and, hence, in student achievement and employment potential, from the considerable investments targeted toward enhancing quantitatively and qualitatively the major educational inputs, i.e., trained teachers, curricula, the schools library service, educational materials, testing and measurement, and school plant. The disadvantaged minority group, (Caribs) will be specifically assisted through the educational materials that would be supplied to the four school located in the Carib reserve territory, and their access to secondary education would be enhanced by the provision of the secondary school in Castle Bruce. About 1,000 children, half of which from the Carib territory, would benefit from project support for textbooks to disadvantaged schools. An improved quality of primary education is expected to help ensure that many more students will be prepared to benefit fully from secondary education, as access to it increases. The project should also contribute significantly to building institutional capacity, particularly at the MOE central Headquarters, district and school levels. It promotes increased collaboration between key public and private sector entities involved in the education sector at the national and regional level; the reforms undertaken are consistent with the OECS Education Reform Strategy. Project support to such discrete areas as achievement testing, integrated education data systems, and expansion and upgrading of educational materials production, will create a basis for OECS regional collaboration, given common interest in these initiatives.

B. Risks

8.2 The principal risks associated with the project relate to: (i) inadequate institutional capacity to carry out the education reform process; (ii) the stringent fiscal situation ; (iii) possible failure to adjust or to closely monitor compliance with the adjustment of the teacher to student ratios in primary and secondary schools; and (iv) PMU problems in meeting the administrative demands presented by heavy front loading of implementation over the first three years, given limited execution experience with Bank financed projects. To minimize potential institutional failures, strong emphasis is placed on sector planning and institutional strengthening, including extensive staff upgrading via both overseas and local training, and Government assurances that the MOE personnel complement will be expanded to ensure that expertise exists to fulfill its broad education sector development mandate.

8.3 To promote inter-country collaboration, high priority will continue to be assigned to pooling technical resources, encouraging the use of Caribbean expertise, sharing of experiences and developing regional interaction, where appropriate and feasible. Several measures are being taken to facilitate smooth, timely project implementation, amid front loading of investments, including: (a) advancing crucial start-up activities, e.g., architectural designs and equipment and furniture specification lists, to be carried out before Effectiveness, via Japanese grant funds; (b) training of PMU staff in key management areas prior to project implementation, to be facilitated by retroactive financing; and (c) provision of 8

months of Project Management expert services to support the PMU over the initial months of project execution.

8.4 Given vulnerabilities of this small economy to external factors and shocks, Government project financing has been kept within easily met ranges at present and projected GDP, and has been concentrated on the local cost portion of the costs. Incremental recurrent costs, often hampering achievement of education sector reforms, will be offset by resources to be released from adjusting teacher to student ratios over the project implementation period. The effective realization of these savings and their transfers to the agreed purposes will be closely monitored on the base of a schedule to be included in the Education Strategy Letter. Minimization of financial risks is achieved through the choice of loan product by the Government: fixed rate US dollar SCL (para. 6.7). Moreover, the project places emphasis on the early preparation of a long term sector development plan which would serve as a vehicle for achieving national consensus on the principal directions of sector development into the next decade.

8.5 Finally, the monitoring system and annual evaluations will permit to adopt timely adjustments in project implementation needed to achieve project objectives.

9. AGREEMENTS TO BE REACHED AND RECOMMENDATION

A. Agreements Reached

9.1 *At negotiations*, the Government and IBRD and IDA reached final agreement on:

(a) the general content of the **Education Strategy Letter** (Para. 5.3). The letter will describe :

(i) the Government education sector reform strategy ;

(ii) the expected budget adjustment to ensure the availability of funds to finance the strengthening of management and planning and the provision of instructional supplies, materials and maintenance, and

(iii) the priority actions the Government will take to effect the reform;

(b) the general content of the **Project Implementation Manual** (Para. 7.2). The PIM would pay special attention to the following topics described in detail in the relative paragraphs in parenthesis:

(i) project objectives and content;

(ii) the applications of Bank guidelines where relevant in implementing the project; particularly on procurement and disbursement procedures;

(iii) IBRD and IDA prior review (Para. 7.23);

(iv) Special Account and withdrawal applications for replenishment (Para. 7.24)

(v) Project Account (Para. 7.25);

(vi) Project Accounting and Auditing (Para.7.30); and

(vii) Project Performance Reporting and Reviews (Paras 7.31-7.33), including the project monitoring and evaluation indicators as delineated in Annex 7, Table 5.

9.2 *As conditions of Loan and Credit Effectiveness*, the Government will present to the Bank and Association :

(i) the Education Strategy Letter , prepared in terms satisfactory to the Bank and the Association;

(ii) the Project Implementation Manual, issued in terms satisfactory to the Bank and Association along with evidence that this Manual is in full force and effect; and

(iii) evidence that the Government has opened a Project Account in a bank acceptable to the Bank and the Association, and deposited into such account an amount equivalent to

not less than US$250,000 for implementation of the project, and that the Government would maintain a positive balance in such account over the implementation period, in the amounts stipulated in the Development Credit Agreement, during which period all project activities are expected to be fully executed.

B. Recommendation

9.3 With the above agreements and assurances, the Project would constitute a suitable basis for a Loan of US$3.07 million equivalent and a Credit of SDR 2.1 million (US$3.07 million equivalent) to the Commonwealth of Dominica.

ANNEXES AND APPENDICES

			Year	Source
A.	**General Country Data**			
	1. Population Estimate (thousand)	72	1993	b
	3. GNP per Capita (US$)	2,680	1993	b
	4. GNP per Capita -- Real Growth Rate (%)	4.8	85-93	b
	5. Area (thou. sq. Km.)	0.75	1993	f
	6. Density (pop. per sq. Km.)	94.67	1993	f
	7. Agricultural land (% of land area)	25.3	1993	f
	8. Forest Coverage (% of land area)	59	1990	b
B.	**Social Indicators**			
	1. Crude birth rate	25.5	1992	a
	2. Crude death rate (per 1,000)	7.9	1992	a
	3. Average Annual Rate of Population Growth (%)	-0.3	1985-93	b
	4. Total Fertility Rate (births per woman)	2.5	1992	b
	5. Infant Mortality Rate (per 1,000 live births)	18	1992	b
	6. Life Expectancy at Birth (years)	72	1992	b
	7. Child Malnutrition (% underweight)	5	1992	b
	3. Expenditure Data			
	Total Public Education Spending as a % of GNP	18	1993	e
	Total Public Recurrent Education Spending as a % of Central Govt budget	17.1	1994	d
	Shares of Public Recurrent Education Expenditures (including contribution to UWI)			
	Primary	52.7		d
	Secondary	27.3		d
	Higher	11.7		d
	Other	8.3		d

Sources

a	Demographic Statistics, 1993
b	The World Bank Atlas, 1995
c	Commonwealth of Dominica, Education Statistics, 1994
d	Budget Estimates of Dominica 1994/95
e	National Accounts Statistics for the Commonwealth of Dominica, 1994
f	Social Indicators for Development, 1995

Table 1A: Primary Schools Staff and Enrolment

Academic Year	No.of Schools	Primary Enrollment	No. of teachers	Students / Teacher
1984/85	66	16,833	612	27.5
1985/86	66	16,102	612	26.3
1986/87	65	15,872	616	25.8
1987/88	65	15,510	617	25.1
1988/89	65	14,975	624	24.0
1989/90	65	14,376	595	24.2
1990/91	65	14,314	670	21.4
1991/92	65	13,663	598	22.8
1992/93	65	14,500	637	22.8
1993/94	65	14,796	636	23.3
1994/95	65	14,320	660	21.7

Chart 1A: Primary School Enrolment Trends

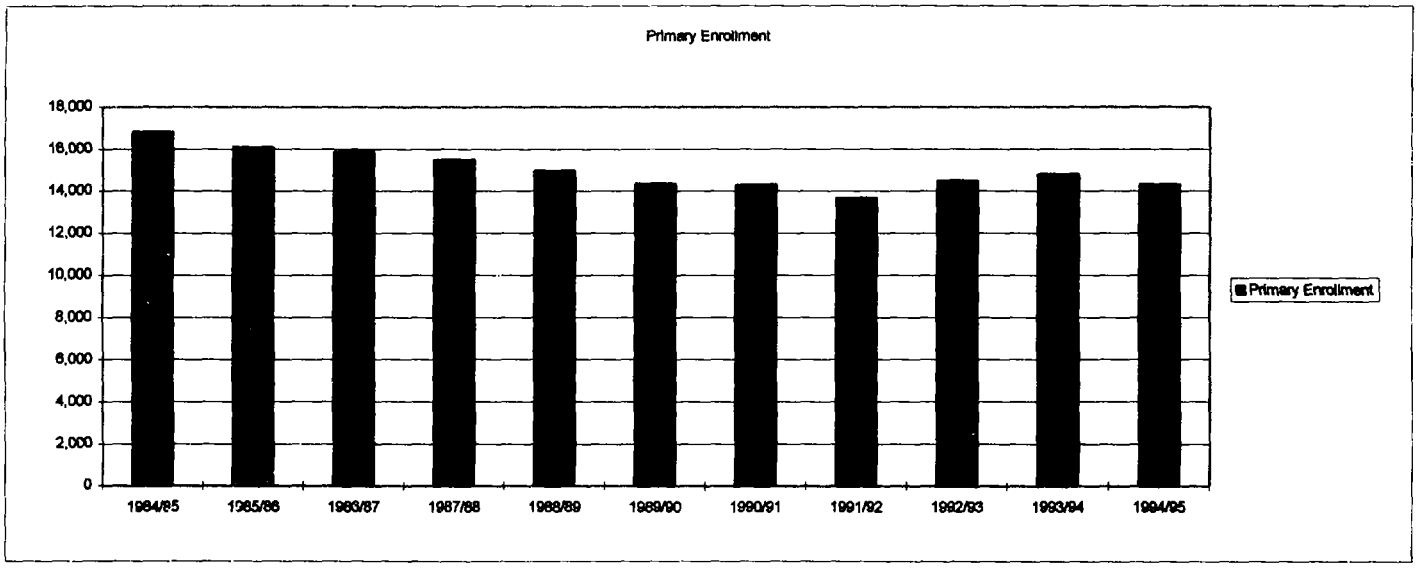


Table 1B: Secondary Schools Staff and Enrolment

Year	Schools	Enrollment	Teachers	Students/Teacher
1984/85	9	3,439	162	21.2
1985/86	9	3,347	166	20.2
1986/87	11	3,190	171	18.7
1987/88	11	3,240	182	17.8
1988/89	11	3,275	175	18.7
1989/90	11	3,344	142	23.5
1990/91	11	n.a.	205	n.a.
1991/92	14	4,536	251	18.1
1992/93	14	4,536	262	17.3
1993/94	14	4,481	256	17.5
1994/95	14	4,511	269	16.8

Figures include primary and secondaryprivate schools

Table 1C: 1994-1995 Academic Year
Secondary School

School	Enrollment	Staff	Stud./Teach
Government			
Goodwill	451	23	19.6
Portsmout	485	24	20.2
Grand Bay	311	21	14.8
St. Joseph	521	33	15.8
D/ca Gram	520	32	16.3
Total	2,288	133	17.2
Assisted			
Convent	511	31	16.5
Communit	137	9	15.2
St.Andrew	347	19	18.3
St. Mary's	383	24	16.0
Marigot	75	4	18.8
St. Martin'	294	22	13.4
Wesley	224	16	14.0
St. Johns	30		
Total	2,001	125	16.0
Private			
D/ca SDA	222	11	20.2

Table 1D: Teachers Qualifications

	1993/94	
	No.	**%**
Primary Level		
Specialist	11	2%
Professionally Trained	237	37%
Untrained	388	61%
-Permanent	165	26%
-Temporary	223	35%
TOTAL Primary Level	636	100%
Secondary Level		
Graduate Teachers	71	28%
-Profess. Trained	27	11%
-Untrained	44	17%
Specialist	20	8%
Non-Degree Teachers	165	64%
-Profess. Trained	21	8%
-Untrained	144	56%
TOTAL Secondary Level	256	100%

Table 2A

COMMON ENTRANCE EXAMINATION RESULTS 1984/85 - 1992/1993

Academic Yea	No. Sat			No. Entered Secondary School			Percent pass		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1984 /85	958	1,324	2,282	235	314	549	24.5%	23.7%	24.1%
1985 /86	873	1,198	2,071	206	320	526	23.6%	26.7%	25.4%
1986 /87	889	1,173	2,062	210	323	533	23.6%	27.5%	25.8%
1987 /88	843	1,132	1,975	200	328	528	23.7%	29.0%	26.7%
1988 /89	762	960	1,722	244	317	561	32.0%	33.0%	32.6%
1989 /90	862	950	1,812	217	343	560	25.2%	36.1%	30.9%
1990 /91	858	949	1,807	329	415	744	38.3%	43.7%	41.2%
1991 /92	987	1,024	2,011	316	427	743	32.0%	41.7%	36.9%
1992 /93	978	1,030	2,008	289	420	709	29.6%	40.8%	35.3%

Source: Commonwealth of Dominica, Education Statistics, 1994

Table 2B

1984 AND 1992 CXC RESULTS FOR SELECTED SECONDARY SCHOOLS

	1984				1992			
	No.Sat	No.Passed	% Pass	National % Pass	No.Sat	No.Passed	% Pass	National % Pass
Government								
Portsmouth	49	46	93.9%	84.6%	376	219	58.2%	50.30%
St. Joseph	-	-			654	243	37.2%	50.30%
Assisted								
Convent	289	251	86.9%	84.6%	409	191	46.7%	50.30%
Community	4	4	100.0%	84.6%	152	59	38.8%	50.30%
St.Andrew's	35	13	37.1%	84.6%	233	122	52.4%	50.30%
St. Mary's	135	122	90.4%	84.6%	409	191	46.7%	50.30%
Wesley	56	30	53.6%	84.6%	96	45	46.9%	50.30%
Private								
D/ca SDA	-	-			112	35	31.3%	50.30%

Source: Commonwealth of Dominica, Education Statistics, 1994

Table 3A

Secondary Schools Drop Outs by Form and and Gender

	I			II			III			IV			V			VI			TOTAL			% RATES		
	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Total	Male	Femal	Total
1) 1984/85	6	18	24	7	8	15	7	13	20	4	14	18	0	4	4	0	0	0	24	57	81	1.9	2.6	2.3
2) 1985/86	6	17	23	8	7	15	13	24	37	7	40	47	1	3	4	0	1	1	35	92	127	2.9	4.3	3.6
3) 1986/87	2	4	6	4	7	11	15	22	37	15	26	41	1	5	6	0	0	0	37	64	101	3.1	3.2	3.2
4) 1987/88	6	7	13	8	9	17	8	11	19	8	18	26	1	5	6	0	1	1	31	51	82	2.4	2.6	2.5
5) 1988/89	5	3	8	6	7	13	18	9	27	27	26	53	2	5	7	0	1	1	58	51	109	3.9	2.6	3.3
6) 1989/90	8	3	11	20	16	36	18	18	36	15	8	23	2	1	3	0	0	0	63	46	109	4.6	2.3	3.5
7) 1990/91	5	13	18	22	12	34	20	12	32	16	13	29	3	2	5	0	3	3	66	55	121	4.8	2.8	3.8
8) 1991/92	5	2	7	17	19	36	4	23	27	6	16	22	0	2	2	0	0	0	32	62	94	1.7	2.3	2.0

Table 3B

Secondary Schools Repeaters by Form and and Gender

	I			II			III			IV			V			VI			TOTAL			% RATES		
	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Total	Male	Femal	Total
1) 1984/85	37	41	78	28	63	91	32	80	112	23	76	99	1	7	8	0	0	0	121	267	388	9.8	12.1	11.0
2) 1985/86	27	31	58	30	55	85	37	75	112	40	90	130	0	5	5	0	0	0	134	256	390	11.0	12.0	11.5
3) 1986/87	19	24	43	27	46	73	24	56	80	29	78	107	0	0	0	0	0	0	99	204	303	8.4	10.2	9.3
4) 1987/88	24	15	39	27	20	47	29	27	56	16	25	41	5	6	11	0	0	0	101	93	194	8.0	4.7	6.4
5) 1988/89	14	23	37	22	22	44	35	43	78	29	57	86	1	0	1	0	0	0	101	145	246	7.8	7.3	7.6
6) 1989/90	28	46	74	15	16	31	31	38	69	22	37	59	1	1	2	0	0	0	97	138	235	7.0	7.0	7.0
7) 1990/91	46	46	92	32	41	73	23	29	52	43	45	88	1	0	1	0	0	0	145	161	306	10.6	8.6	9.6
8) 1991/92	60	56	116	70	47	117	71	42	113	30	24	54	0	0	0	0	0	0	231	169	400	12.3	6.3	9.3

Chart 3A: Drop-out Rates

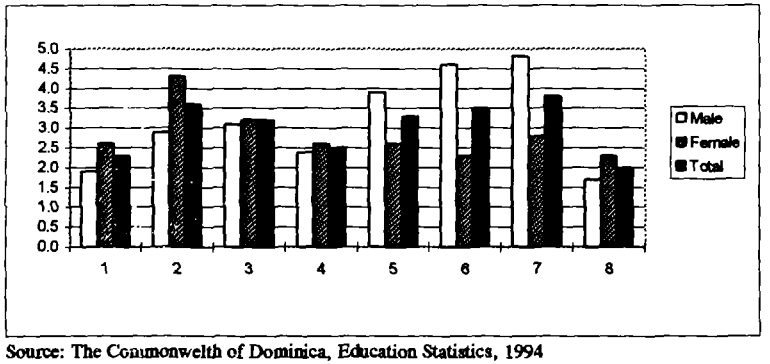
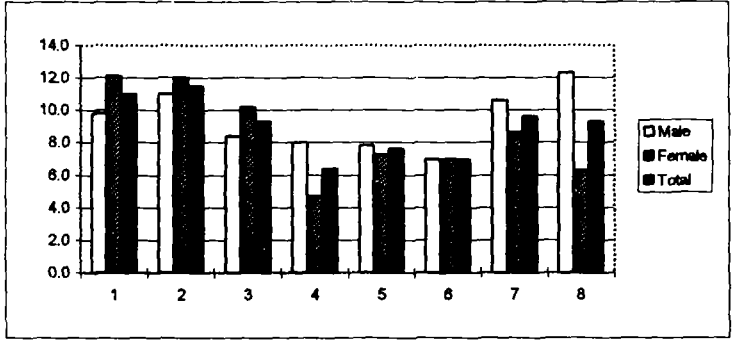


Chart 3B: Repetition Rates



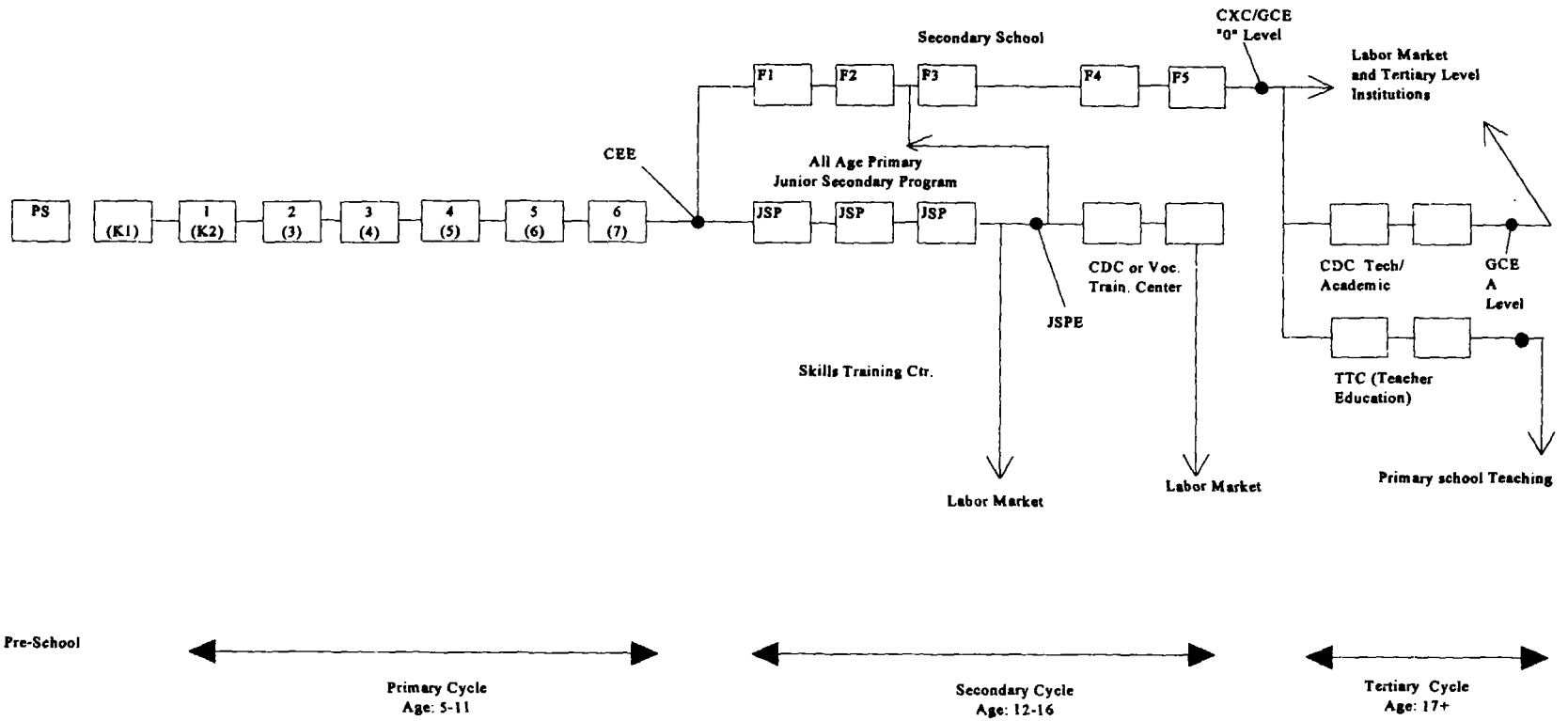
Source: The Commonwelth of Dominica, Education Statistics, 1994

DOMINICA: BASIC EDUCATION REFORM PROJECT
Growth of Secondary School System

Year	Data on Public Secondary Schools and Junior Secondary Schools (JSS)			
	Number of Sec.Schools	New	Converted from JSP programs to 5-year Schools	Secondary School Enrollment (it includes D/ca SDA--private)
1970/1	4 (*)			
1971/2	5	Portsmouth Secondary, D'ca Grammar becomes co-educational		
1979/80	7	St. Andrew's H.S. and D/ca Community High		
1980/81	8	Marigot Foundation		
1985/6	8	StJoseph 's establish a JSP		3347
1986/7	8	Gran Bay, St Martin's and Goodwill establish JSP programs		3190
1987/8	8			3240
1988/9	9	Grand Bay Secondary		3275
1989/90	10		St.John's HS	33444
1990/1	13		St.Joseph, St. Martin, and Goodwill Grand Bay Sec. absorbs the JSP	n.a.
1991/2	13			4536
1992/3	13			4536
1993/4	13			4481
1994/5	13			4511

(*) D'ca Grammar (Boys), St. Mary's (Boys); Convent (Girls); Wesley (Girls))
Source: MOE

Dominica
Basic Education Reform Project
Structure of the School System



DOMINICA

Current Organigram of Ministry of Education and Sport

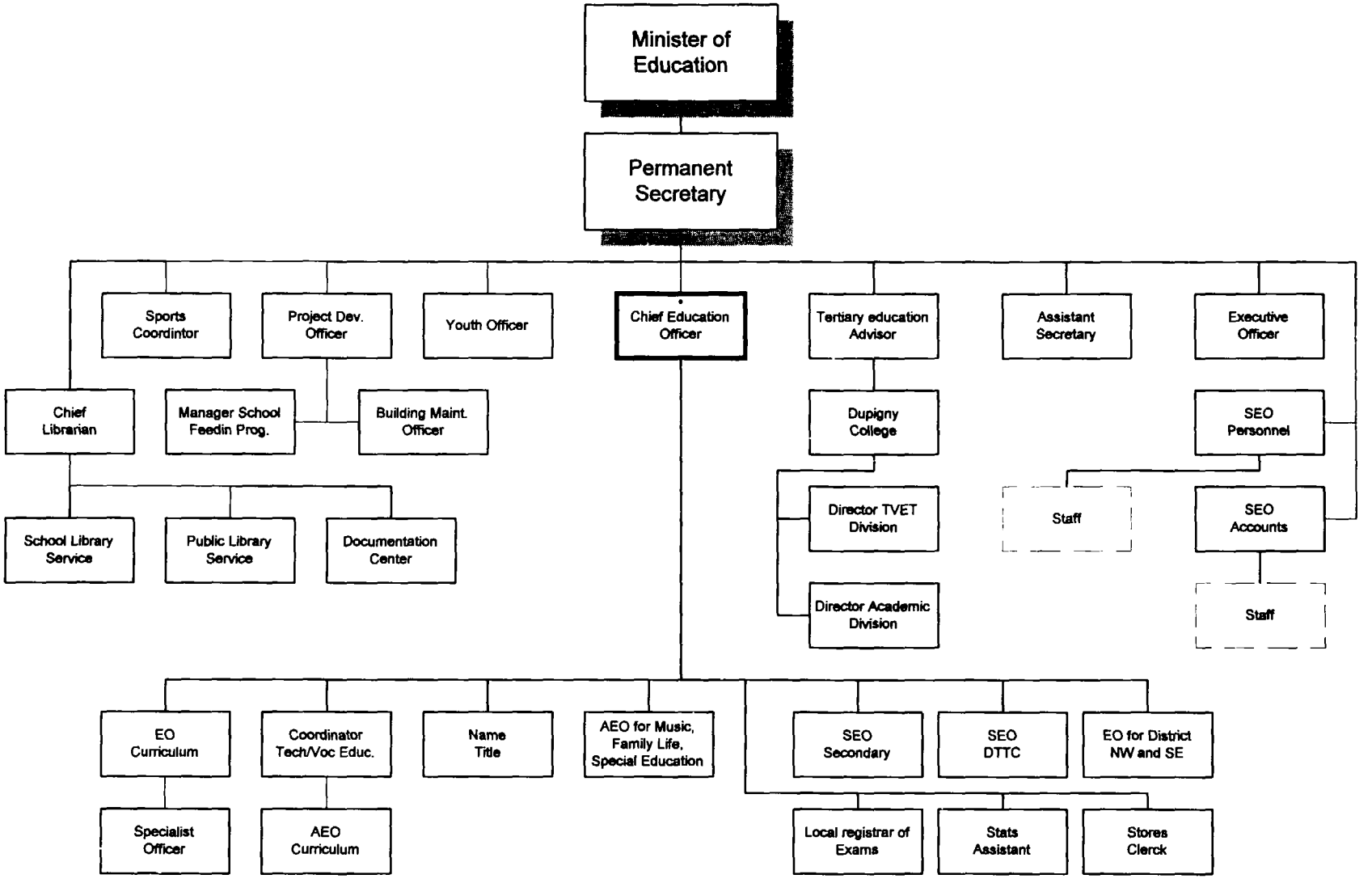


Table 1: Recurrent Expenditure

RECURRENT EXPENDITURE IN EDUCATION (in EC$)

	89/90	90/91	91/92	92/93	93/94	94/95 *
Recurrent						
Education	20,019,441	22,896,830	24,552,749	25,980,305	27,415,354	29,775,800
Total	111,236,550	135,353,208	141,120,971	150,511,765	165,758,297	174,265,020
%	18.00%	16.92%	17.40%	17.26%	16.54%	17.09%

Does not include the contribution to UWI
* Estimates

Chart 1A: Recurrent Expenditure in the Education Sector and Total National Recurrent Expenditure

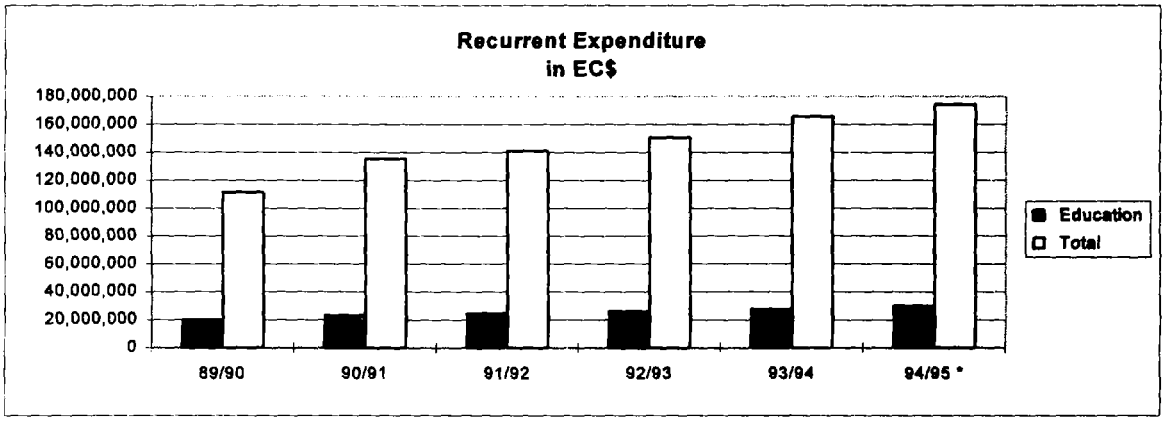


Chart 1B: Recurrent Expenditure in Education as a Percentage of Total National Recurrent Expenditure

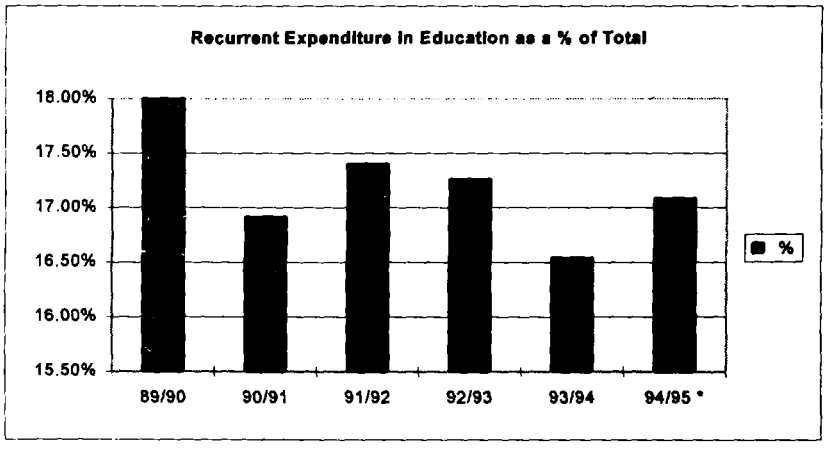


Table 2: Capital Expenditure

CAPITAL EXPENDITURE IN EDUCATION (in EC$)

	89/90	90/91	91/92	92/93	93/94	94/95 *
Capital						
Education	1,778,503	2,066,694	2,760,095	1,410,681	2,081,870	12,728,270
Total	80,831,969	56,862,320	35,700,205	27,007,183	27,229,666	128,066,980
%	2.20%	3.63%	7.73%	5.22%	7.65%	9.94%

* Estimates

Chart 2A: Capital Expenditure in the Education Sector and Total National Capital Expenditure

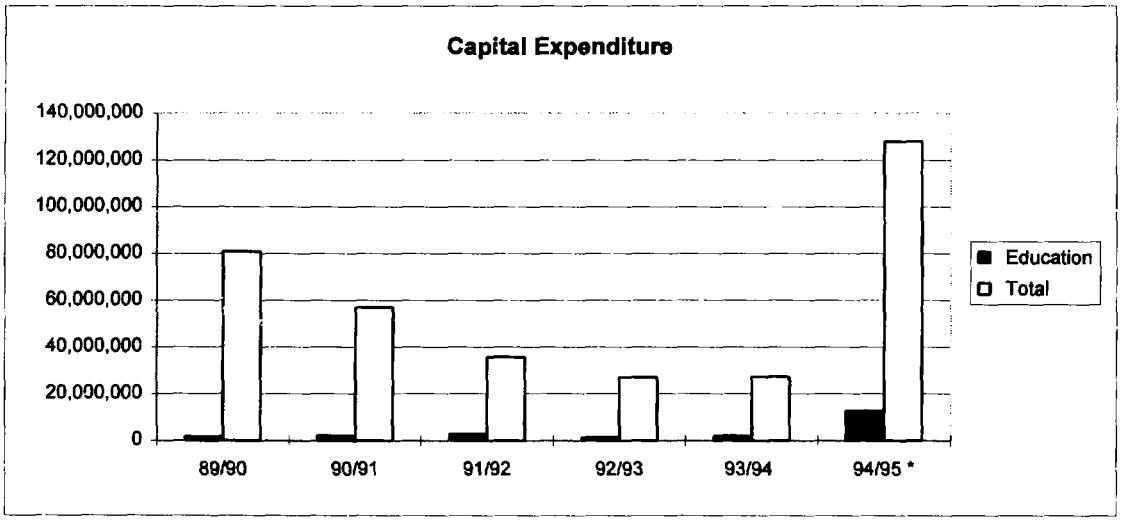


Chart2B: Capital Expenditure in Education as a Percentage of Total National Capital Expenditure

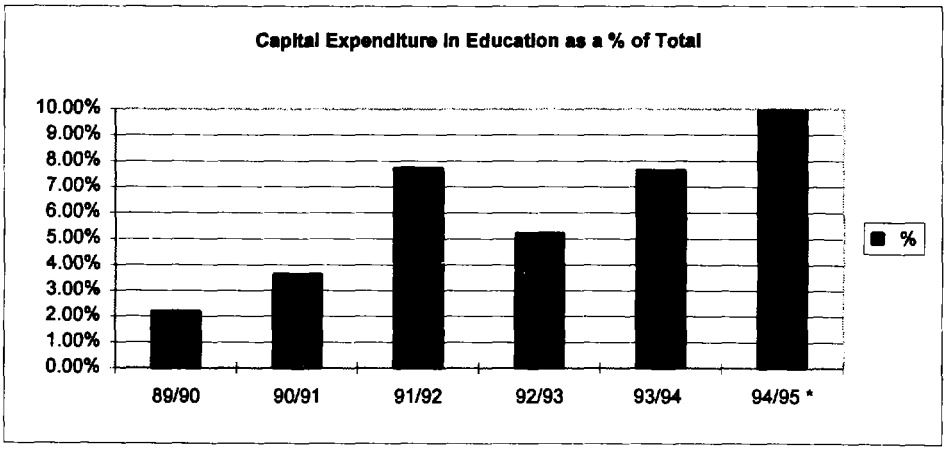


Table 3A

Primary Level

Recurrent

Enollment * AY1994/95	Budget in EC$ (94/95 Estimates)	Cost/Student EC$	Cost/Student US$ Equiv.
13,751	15,553,300	1,131	419

* Enrollment does not include private schools

Table 3B

Secondary Level

Recurrent

School	Enollment AY1994/95	Budget in EC$ (94/95 Estimates)	Cost/Student EC$	Cost/Student US$ Equiv.
Government				
Goodwill	451	447,380	992	367
Portsmouth	485	748,030	1,542	571
Grand Bay	311	455,990	1,466	543
St. Joseph	521	844,100	1,620	600
D/ca Grammar	520	994,980	1,913	709
Total	2,288	3,490,480	1,526	565
Assisted				
Total	2,001	4,056,000	2,027	751
TOTAL	4,289	7,546,480	1,759	652

Source: Commonwealth of Dominica, Education Statistics 1994 and Budget Estimates, 1994/95

* Enrollment does not include private schools

DOMINICA: BASIC EDUCATION REFORM PROJECT
MOE Recurrent Budget on Education
1994-95 in EC$
Estimates of Expenditures

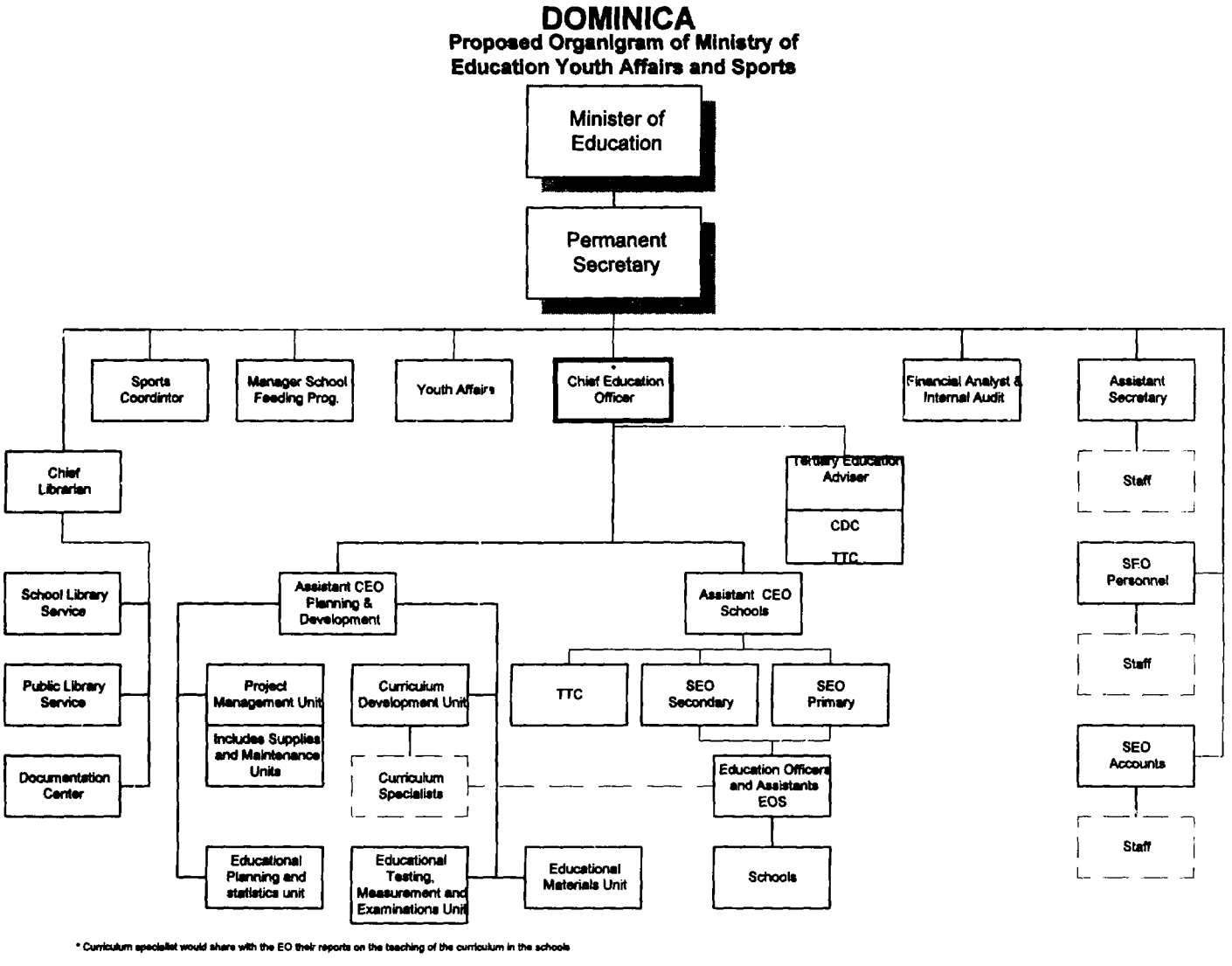
	Salaries Teachers	Other Salaries	Travel Office & General	Supplies Materials tools Equipment	Grants	Other (misc.)	Operations Maintenance	Total
Pre School	-	-	-	-	42,000	-		42,000
Primary	15,008,000	32,000	75,000	190,000	2,000	73,000	150,000	15,553,300
Special Education	152,100	12,780	2,500	4,500	-	-	2,000	173,880
Secondary	6,437,830 1/	1,108,650 2/	24,000	252,500	300,000 3/	-	182,500	8,005,480
Tech/Voc (Mgmt of JSP)	-	-	-	79,000	45,000		15,000	139,000
Tertiary (TTC CDC UWI)	-	-	-	-	-	-	-	3,495,775
Library	-	-	-	-	-	-	-	648,930
Admin. & Central	-	6,376,470	273,560	40,000	4,000	23,500		1,717,530
Total								29,755,895
National Recurrent Total								174,265,020

1/ **Assumes $3.4 million for Assisted Schools**

2/ Assumes out of Assisted Schools Grant, $356,000 for non teaching salaries and $15,000 for supplies and $15,00 for Operation and maintenance.

3/ Assumption as to the share of total scholarship allowance of $407,770 that goes to secondary students, with the balance to CDC students.

Chart 3


DOMINICA
Proposed Organigram of Ministry of Education Youth Affairs and Sports
Minister of Education
Permanent Secretary
Sports Coordintor
Manager School Feeding Prog.
Youth Affairs
Chief Education Officer
Financial Analyst & Internal Audit
Assistant Secretary
Chief Librarian
Tertiary Education Adviser
CDC
TTC
Staff
School Library Service
Public Library Service
Documentation Center
Assistant CEO Planning & Development
Assistant CEO Schools
SEO Personnel
Staff
Project Management Unit
Includes Supplies and Maintenance Units
Curriculum Development Unit
TTC
SEO Secondary
SEO Primary
SEO Accounts
Curriculum Specialists
Education Officers and Assistants EOS
Staff
Educational Planning and statistics unit
Educational Testing, Measurement and Examinations Unit
Educational Materials Unit
Schools
* Curriculum specialist would share with the EO their reports on the teaching of the curriculum in the schools

DOMINICA: PROPOSED BASIC EDUCATION PROJECT
WORKING PAPER ON BUDGETARY REALLOCATION IN EDUCATION

1. In the education sector in Dominica, there are two overriding efficiency issues--one concerning the efficiency of management and the other the efficiency of the schools:

(a) the absence of sufficient specialized management staff to lead and guide the schools and
(b) the low share of school budgets spent on non-salary items.

The management deficiency is masked by the persistent, hard work of a few, but a broader effort is needed to sustain reform and to keep costs within reasonable limits. Low non-salary expenditure seriously affects teacher morale and student performance.

2. The financial commitment being made by the Government to education falls within the reasonable range (15% and 25%) of the national recurrent budget. The sector share is budgeted to be 17.7% in 1994-5 (including the UWI subvention of $1,354,865). This is lower than the share allocated in St. Lucia (22-25%), but it is expected to rise over the long term. In the current fiscal situation, the immediate solution to funding deficiencies in the sector would lie in an intra-sectoral reallocation of the sector budget rather than in an immediate increase in the sector share of the national budget.

3. This Working Paper examines how resources might be found within the existing budget to strengthen sector management and more effectively provide the schools with the furniture, equipment, materials and supplies and the maintenance services essential to good teaching.

4. **Adjustment of Teacher to Student Ratios**. We tend too readily to equate high teacher to student ratios with high quality in education, although research has shown that teacher to student ratios, except at the extremes, bear little relationship to student performance. Examples in Dominica as elsewhere, show that the "best" performing public schools do not generally have the highest ratios but they are the best managed.

5. The current teacher to student ratios in Dominica are far more generous than those in numerous countries in similar, worse or better economic circumstances[1], and these ratios are becoming even more

[1] Data from a sample of countries according to the UNESCO *Statistical Yearbook* 1993:

Country	Per Capita GNP (US$) 1992 [World Bank Data]	Primary Students Per Teacher		Secondary Students Per Teacher	
		Year	No.	Year	No.
Cameroon	820	1990	51	1989	32
Gabon	4450	1991	44	1991	32
Zimbabwe	520	1992	38	1990	27
Jamaica	1340	1990	37	1985	31
Trinidad & Tobago	3940	1990	26	1990	20
Korea	6790	1992	33	1992	24
Philippines	770	1991	33	1991	32
Dominica (MOE data)	**2520**	**1994**	**22**	**1994**	**17**

generous. For example, Table 1A, Annex 2 shows an increase in the ratios for both public and private schools from 1:27.5 in 1984-85 to 1:21.7 in 1994, and it is estimated that in 1995 it has reached 1:20.5. This has resulted in no clear improvement in the quality of primary education. At secondary level, the increase was from 1:21.2 (Table 1B, Annex 2) to 1:16.6 over the same period of time during which the performance of secondary schools in the CXC deteriorated (Table2B, Annex2). Moreover, there are no firm standards--ratios are not now uniform across the country. In primary education, where the average ratio was 1:23.4 in 1994-95[2], individual schools ranged from 1:11 to 1:33 and in secondary education, where the average was 1:16.5, they ranged from 1:13.4 to 1:20.2.[3]

6. It therefore appears necessary for the Ministry to establish realistic standards and apply them judiciously, taking into account the special needs of small schools, which, even with a more rational distribution of schools, the use of multi grade teaching and clustering, will require more generous ratios than large schools.[4] An average ratio of 1:30 at primary level and 1:25 at secondary level (if no 6th forms are involved) is not unreasonable. In the medium term, a feasible aim would be 1:26 at primary and 1:20 at secondary level, with the longer term (i.e. 10 year) objective of 1:30+ and 1:25, respectively.[5]

7. Decisions on staff to student ratios and the organization of schools and curricula are only part of a complex of decisions on delivering educational services, all of which have large financial implications when applied system-wide. This complex needs to be carefully thought out and based on policies and standards arrived at in full recognition of their financial and educational implications. The system-wide financial impact of small changes in ratios is considerable. Hence, schools should be: (a) guided on their staffing needs in view of the limited resources available; (b) helped to use staff efficiently and (c) advised on economic alternatives in organizing curricula and time-tables. For this crucial leadership role, the Ministry needs more trained, senior staff.

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[2] More work will be needed to establish the exact ratio. The MOE figures on current staffing are incomplete and do not show the numbers on leave or the temporary staff substituting for them. This deficiency does not affect the validity of the phasing shown in Table 1; it merely means that the starting point is yet to be precisely determined.

[3] Among the 59 primary schools, 3 had no data on staff, 13 were 1:16 or above, 15 were between 1:17 and 1:21, 21 between 1:22 and 1:26, and 7 below 1:27. The 13 secondary schools fell between 1:13.4 and 1:20.2, excluding one that had no staff data.

[4] For example, for an average nation-wide ratio of 1:28, the actual ratios by public school might be as follows:

Enrollment	Standard Ratio	Impact as applied to existing system:			
		Actual No. of Schools	Actual No. of students	Req'd teachers (rounded off)	Students per teacher
>90	1:20	14	706	37	19.1
90-120	1:22	8	830	37	22.4
121-179	1:24	7	1,047	44	23.8
180-256	1:27	11	2,328	87	26.8
257-344	1:30	5	1585	53	29.9
345+	1:32	14	7240	226	32.0
Total		**59**	**13,751**	**484**	**28.4**

For further reductions, the larger schools can move to 1:35, bringing the average to 1:30.

[5] Currently, the increase is occurring at the secondary level while there is a decline at the primary level. By 2001 there will probably be some increase in the primary level school age population but this will probably be offset in the primary schools by the increased rate of transition of children of the post primary age group into the secondary schools. Detailed analysis will be needed to refine the projections.

8. The 1994-95 budget for salaries constitutes 94.8% of the total Primary sub-sector allocation and 94.9% of the Government Secondary School budget. Funds for other urgent needs of the schools--supplies, materials, repairs of physical plant, testing, supervision, training etc.--to provide the environment in which principals, teachers and students can perform at an optimal level are therefore quite constrained. Shifting funds from salaries to these other school purposes, would represent a more balanced and productive mix of resources for teaching.

9. No drastic measures would be needed in order to achieve this adjustment. Phasing the change would obviate the need to retrench teachers, but would reduce sharply the recruitment of new ones over the next few years. Such a slowdown would present an opportunity for consolidation--improving average qualification levels and performance standards of teachers. The slowdown should begin soon because primary enrollment is in the process of a decline which might endure for a few years.

TABLE 1 Parts 1-3 sets out the implications of such phasing.

TABLE 1 ADJUSTMENT OF TEACHER TO STUDENT RATIOS

Part 1. The Demand for Teachers

Year	Enrollment Primary (Public)	Students per Teacher	Teachers Needed & in place	3% Attrition	Transfers to Secondary & Admin..	New recruits
1994-95	13,751 (actual)	21.6(actual)	638	18	2	-
1995-96	13,737(projected)	22.2	618	18	2	-
1996-97	13,723	22.9	598	18	2	-
1997-98	13,709	23.7	578	17	2	-
1998-99	13,695	24.5	559	17	1	-
1999-00	13,691	25.2	542	16	-	-
2000-01	13,685	26.0	526	16	-	-
	Enrollment Secondary				Transfers to Admin.	New Recruits (Include. transf. from Prim.)
1994-95	4,289 (actual)	16.6(actual)	258	8	-	2
1995-96	4,290	17.0	252	8	7	20
1996-97	4,500[6]	17.5	257	8	7	26
1997-98	4,815	18.0	268	8	2	14
1998-99	5,025	18.6	272	8	-	8
1999-00	5,175	19.3	272	8	-	4
2000-01	5,280	20.0	270	8	-	-

[6] Projections assume growth at Castle Bruce, 1996-7 to 2000-01, Grand Bay and Portsmouth, 1996-7 to 1997-98.

TABLE 1 **Part 2. Savings at constant 94/95 dollars**

	Total Salaries 1994	No. of Teachers	Av. Salary per teacher	Salaries at current ratios in 2000-01	Salaries at reduced ratios in 2000-2001	Net Saving
Primary	15,007,674	638[7]	23,523	14,937,105[8]	12,373,098[9]	2,564,007
Secondary	6,437,830[10]	258	24,953	7,935,054[11]	6,737,310[12]	1,197,744
Total	21,445,504	896	23,935	222,872,159	19,110,408	3,761,751

TABLE 1 **Part 3. Growth of Savings Over the Period 1995-2001**

Year	Salary Costs by Current Standards		Salary Costs by Revised Standards		Net Saving
	Primary	Secondary	Primary	Secondary	
1995-96	14,984,151	6,437,874	14,537,214	6,288,156	596,655
1996-97	14,984,151	6,762,263	14,066,754	6,412,921	1,266,739
1997-98	14,960,628	7,236,370	13,596,294	6,687,404	1,913,300
1998-99	14,937,105	7,560,759	13,149,357	6,787,216	2,561,291
1999-2000	14,937,105	7,785,336	12,749,466	6,787,216	3,185,759
2000-01	14,937,105	87,935,054	12,373,098	6,737,310	3,761,751

10. Such an adjustment can yield, by 2000-01, some EC$3.8M. in "savings" to strengthen sector management and improve direct support to the schools in terms of furniture, equipment, materials and supplies and maintenance of physical plant. The transfer of savings to these purposes would need to be guaranteed; otherwise, educational standards will decline even further and the frustration levels among the teachers will rise.

[7] These are 1994-95 figures which include temporary (or relief) teachers and the 30 trainees at TTC.

[8] 635 teachers at $23,523

[9] 526 at $23,523.

[10] For the Assisted Schools a rough estimate ($3.4m.) has been made of the amount of the Government subvention ($4.085m.) allocated to teachers' salaries.

[11] 318 at $24,953

[12] 270 at $24,953

Strengthening Sector Management.

11. Although Dominica is a small country, it does need a broad range of administrative and technical services to operate a viable education system. With careful use of staff, it can afford that range. The additional staff required at Head Office to strengthen and improve operations and an estimate of its cost are listed in the **TABLE 2.**

TABLE 2. NEW UNITS, STAFF AND COSTS (In EC$000S)

UNIT	Salary	Travel	Off.+ Gen.	FY95-6	FY96-97	FY97-98	FY98-99	FY99-00	FY20-01
1. Senior Management									
*CEO[13]									
ACEO (P & D)	48	6.3	8		50	62.3	62.3	62.3	62.3
Typist/Clerk	16				16	16	16	16	16
ACEO (Schools)	48	6.3	8		31	62.3	62.3	62.3	62.3
SEO (Primary)	41	6.3	2		40	49.3	49.3	49.3	49.3
*SEO (Secondary)									
Subtotal	153	18.9	18		137	189.9	189.9	189.9	189.9
2. Educational Planning & Statistics Unit (EPS)									
Planning Officer	45	6.3	10		61.3	61.3	61.3	61.3	61.3
Research Officer	36	6.3	3		10.	42.3	42.3	42.3	42.3
Statistician	44	6.3	15			33	65.3	65.3	65.3
Assistant Planning Officer	25	6.3	5		30	30	30	30	30
Clerk/typist	16				16	16	16	16	16
Subtotal	166	25.2	33		117.3	182.6	214.9	214.9	214.9
3. Project Management Unit (PMU)									
Project Manager	45	6.3	15	25.0	64.3	66.3	66.3	66.3	66.3
Procurement Officer	44	6.3	15	25	60.3	65.3	65.3	65.3	65.3
Accountant	44		5	24	47	47	47	47	47
*Buildings Officer[14]			15		10	15	15	15	15
*2 Mtnce. Supervisors									
Clerk/typist	16			8	16	16	16	16	16
1 Clerk/1 Driver	32			16	32	32	32	32	32
*Proc. Asst. (Stores/Clerk)									

[13] Asterisk where a post already exists, hence excluded from cost estimates.

[14] Now Project Development Officer

UNIT	Salary	Travel	Off.+ Gen.	FY95-6	FY96-97	FY97-98	FY98-99	FY99-00	FY20-01
Subtotal			50	98	229.6	241.6	241.6	241.6	241.6
4. Testing, Measurement and Examinations Unit (ETX)									
Testing Officer	44	6.3	20		-	70.3	70.3	70.3	70.3
Testing Officer	42	6.3	15		25	63.3	63.5	63.3	63.3
Testing Assistant	35		15		17	45	50	50	50
Machine Operator	22		20		22	42	42	42	42
*Registrar of Exams									
Asst. Registrar	25		5		30	30	30	30	30
Clerk/Typist (2)	32				16	32	32	32	32
Driver	17				6	17	17	17	17
Subtotal			80		116	299.6	304.6	304.6	304.6
5. Educational Materials Unit (EMU)									
General Editor	44	6.3	15		18.0	60.3	65.3	65.3	65.3
Art Editor	44	6.3	15		18.0	60.3	65.3	65.3	65.3
Editorial Asst. (2)	35		15		34	80	100	100	100
Graphics Technician	25		15		20	40	40	40	40
Machine Operator (Shared with ETX)			15			15	15	15	15
Clerk/Typist	16				8	16	16	16	16
Sub-total			90		98	79	17	17	17
6. Administration									
Exec. Officer (Personnel)	30				30	30	30	30	30
Exec. Officer (Accounts)	30				30	30	30	30	30
Sub-total			3		60	60	60	60	60
7. Curriculum Development Unit (CDU)									
* EO Curriculum			5		5	5	5	5	5
Curr/Off. (4 core areas)	41	6.3	8		80	221.2	221.2	221.2	221.2
Curriculum Asst.	35		3			38	38	38	38
* Clerk/typist									
Subtotal			40		85	264.2	264.2	264.2	264.2
8. Schools Library Service									
Assistant. Librarian	29		15				25	44	44

UNIT	Salary	Travel	Off.+ Gen.	FY95-6	FY96-97	FY97-98	FY98-99	FY99-00	FY20-01
Library Assistant	17		5		20	22	22	22	22
Library Technician	17		5		20	22	22	22	22
Driver	17		-		8	17	17	17	17
Subtotal			35		55	76	86	105	105
9. DEO/East--CASTLE BRUCE :									
Clerk/Typist	16		8		8	24	24	24	24
Sub-total					8	24	24	24	24
TOTAL				98	886.9	1617.5	1702.8	1721.8	1721.8

12. The preliminary estimate of recurrent cost is EC$1.72 million (US$651,000). Salary amounts are not very precise and need to be refined by MOE. The phasing of staff needs to be refined as well. The assumptions made here indicate the need for about 39 more positions, 24 at the professional level and 15 at the clerical/technical level. The exact amount would depend on rationalizing the use of typists and drivers (some of whom can come from the existing service); it remains to be determined how many of the library positions are additional. About 20 of these new officers can come from staff in the schools, either to fill the new positions or to replace officers promoted into new posts. This expenditure on Head Office has its benefits. It will help to eliminate waste and inefficiencies arising from: (i) the inadequacy of supervision and control, and (ii) delays in formulating appropriate policies to deal with emerging situations; and it will build the infrastructure for sustained sector reform and development, which by itself would have required an increase in the staff. At present, only six percent of the sector budget goes to management--about the lowest in the OECS. With this change in numbers, there will be modernized equipping of offices and personnel training. These measures should raise the productivity of the management and efficiency in the schools.

Improving Direct Support to the Schools.

13. **TABLE 3** sets out some idea of the improvement needed in the non-salary budgets at primary and secondary levels and a possible phasing in of these:

TABLE 3 **ADDITIONAL REQUIREMENTS FOR DIRECT SCHOOL SUPPORT: SUPPLIES & MATERIALS AND OPERATIONS & MAINTENANCE (Amount shown in EC$000s)**

Year	Primary--Supplies & Materials		Secondary--Supplies & Materials		Primary--Operations & Maintenance		Secondary--Operations & Maintenance		Total
	Amount	EC$ per Student	Amount	EC$ per Student	Amount	EC$ per Student	Amount	EC$ per Student	
1995-96	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
1996-97	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
1997-98	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
1998-99	170	12.41	80	15.92	200	14.60	50	9.95	500
1999-00	300	21.91	100	19.32	280	20.45	120	23.19	800
2000-01	**380**	**27.77**	**173**	**32.77**	**300**	**21.92**	**175**	**33.14**	**1,028**
(Cf.1994-95[15]	**130**	**9.45**	**73**	**17.02**	**150**	**10.91**	**32.5**	**7.58**	**385.5)**

14. No figures are given for 1995-96 to 1997-98. In this period the funding for these perposes would come from two sources: first, the regular MOE's budget at the current levels (which are expected to remain constant throughout the project implementation period and beyond); second, the project capital investments in supplies and rehabilitation. The present low recurrent allocations per student would be raised substantially, but gradually, in order to permit management capacity and institutional procedures to be built up in procuring and managing the goods and services to be provided. The project would assist in this by the absorption of the existing services into the PMU where they would be better supported professionally through the oversight of the procurement officer and the project manager. These services would also be better equipped and provided more assured recurrent financing to undertake sector-wide procurement of furniture, equipment, materials and supplies and the maintenance of buildings and equipment.

15. The impact, in per student terms, would be as follows:

Table 3/B

Year	Primary Level (in EC$)		Secondary Level (in EC$)	
	Supplies & Materials	Operations & Maintenance	Supplies & Materials	Operations & Maintenance
1994-95	9.45	10.91	17.02	7.58
2000-01	37.22	32.83	49.79	40.72

This will allow for a basic supply of equipment and materials and a limited number of books.

[15] These figures are supplied by MOE. The Official Estimates of Expenditure offer different figures (Table 4).

Reallocation of Savings.

16. The reallocation of savings (TABLE 4) will not only meet the needs indicated in regard to management strengthening and school supplies; from the year 2000-01 it will leave substantial sums for maintenance equipment and facilities in-service training and upgrading of teachers and other activities to contribute toward improved quality of teaching (Appendix to Annex 6).

TABLE 4 **REALLOCATION OF SAVINGS (in EC$)**

Year	Additional Allocations				Savings Available from adjustment of ratios_c/	Amount of Savings in excess of Allocations
	To Management Strengthening_a/	To Supplies & Materials_b/	To Operations & Maintenance _b/	Total		
1995-96	98,000	-0-	-0-	98,000	596,655	498,655
1996-97	886,900	-0-_d/	-0-_d/	886,900	1,266,739	379,839
1997-98	1,617,500	-0-_d/	-0-_d/	1,617,500	1,913,300	295,800
1998-99	1,702,800	250,000	250,000	2,202,800	2,561,291	358,491
1999-00	1,721,800	400,000	400,000	2,521,800	3,185,759	663,959
2000-01	1,721,800	553,000	475,000	2,749,800	3,761,751	1,030,951

_a/See TABLE 2 for details.
_b/ Amounts shown here are additional to the 1994-5 provision which was $203,000 for Supplies & Materials and $182,500 for Operations & Maintenance. The slow build-up in regard to these two categories (S & M and O & M) will permit time for the institutional strengthening to be accomplished so that expenditure could be efficiently managed. See table 3 for details
_c/ See Table 1Part 3 for details.
_d/ Note: In 1996-8 there will be project capital investment in these categories while absorptive capacity is being built up.

17. The adjustment will have an important impact both on the MOE and national recurrent budgets and on the overall public service establishment. Table 5 presents the projected evolution of the sector budget; this will need to be refined in the light of (a) some rationalizing of existing posts and duties and (b) the proposed long range plan that will be prepared under the project. This set of projections allows modest annual growth rates in some sub-sectors--technical/vocational (10%), tertiary (2% to 1997 and 5% thereafter) and Pre-School (3% to 1997 and 10% thereafter). Without increases in these subsectors, the overall sector budget would remain stable despite the overall enrollment increase. The overall growth of the sector can be accommodated within about 16% of the national recurrent budget, assuming that the latter grows at about 2% per annum. The sector share would decline from 17.1% in 1994-95 to 16% in 2000-01.[16]

[16]These projections accept much of the *status quo* in the system. This should not be taken to mean that all of this is endorsed. For example, the 43.9% growth in the Assisted secondary school budget between 1991-92 and 1994-95 outstrips the overall sector budget growth of only 18% in the same period. Moreover, the wide inter-school disparities in per student costs at the secondary level is a problem. These are among the issues that will be examined by the proposed secondary school study that to be undertaken in September-October of 1995.

Table 5. Projected Evolution of MOE Recurrent Budget–1995-2001
(in EC$000s)

Sub-sector	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01	Share of budget (%)
Pre-School	42.0	43.3	44.6	45.9	50.4	55.4	61.0	0.19
Primary								
(a) Teacher salaries	15,008.0	14,537.2	14,066.8	13,596.3	13.149.4	12,749.5	12,373.1	43.15
(b) Supplies & Mtnance [1/]	280	280	280	280	650	860	960	
(c) Other costs	245.3	245.3	245.3	245.3	245.3	245.3	245.3	
Special Educ.	173.9	179.1	184.5	190.0	195.7	201.6	207.6	0.656
Secondary								
(a) Teacher Salaries	6,437.8	6,288.2	6,412.9	6,687.4	6,787.2	6,787.2	6,737.3	27.50
(b) Other salaries	808.7	808.7	808.7	808.7	808.7	808.7	808.7	
(c) Supplies & Mtnance	105.5	105.5	105.5	105.5	235.5	235.5	453.5	
(d) Other Costs	653.5	653.5	653.5	653.5	653.5	653.5	653.5	
Tech/Vocational	139.0	152.8	168.1	184.9	203.4	223.7	246.1	0.78
Tertiary (TTC, CDC, UWI)	3,495.7	3,565.6	3,636.9	3,709.6	3,895.1	4,089.9	4,294.4	13.65
Library	648.9	650.0	710.0	750.0	760.0	780.0	800.0	2.54
Administration & Central	1,717.5	1,730.0	2,600.0	3,436.0	3,530.0	3,530.0	3,630.0	11.53
Sector Total	29,755.8	29,239.2	29,811.3	30,693.1	31,154.2	31,300.3	31,470.5	100.00
National Recurrent Budget (EC$m.)	174.27	177.76	181.32	184.95	188.64	192.42	196.27	
Sector as % of National Budget	17.1	16.4	16.4	16.6	16.5	16.3	16.0	

[1/] These figures are those identified by MOE for primary (and for secondary) and are different from those in the official estimates. The difference between these figures and the official estimates is included under Other costs which are not projected to increase in the same manner as the supplies and maintenance costs. As indicated above, there will be substantial project investments in supplies and maintenance over the period 1996-98; these capital costs are not shown here.

Source: 1994-95 figures calculated on the basis of data in the Draft 1994/95 Estimates of the Commonwealth of Dominica. Government Printery, Roseau.

18. The impact of the adjustment on the public establishment of posts is set out in Table 6. The comparisons are presented only in respect of the sub-sectors in which change is brought about by the adjustment.[17]

[17] There would be minor increases in such subsectors as tertiary, technical/vocational and special education; but these are not directly connected with the adjustment program and the increases are expected to be negligible if efficiency measures are adopted.

Table 6. Growth in Personnel Establishment in MOE

Year	Primary Teachers	Secondary Teachers	Admin. & Central	Library	Total
1994-95	638	258	40	14	950
1995-96	618	252	45	14	929
1996-97	598	257	73	17	945
1997-98	578	268	76	18	940
1998-99	559	272	76	18	925
1999-00	542	272	76	18	908
2000-01	526	270	76	18	890
Change	(112)	12	36	4	(60)

Source: Tables 1 & 2 above; 1994-95 Allocations of Staff and Pay Scales in the Civil Service. Commonwealth of Dominica

19. Despite the increase in the number of central administration positions, the overall sector establishment would decline by some 60 positions over the six year period. This decline would produce benefits in the labor market, since it releases funds for improved supplies of educational materials to schools and maintenance services that will stimulate activity in the construction industry, the book trade and other distributive trades.

20. The adjustment program would therefore produce the following important benefits:

(a) it will provide for better planning and more efficient management of a sector that absorbs an appreciable share of the national budget;

(b) while maintaining teacher to student ratios at a reasonable and affordable level, it would lead to a more productive use of available resources through improved provision of educational materials, regular maintenance of school facilities and enhanced training, supervision and support of teachers;

(c) over the medium term, during the fiscal crisis faced by the Government, the overall burden of the sector on the national budget would be maintained at its current level or slightly reduced, and

(d) it would be in line with the Government's effort to reduce the public personnel establishment and stimulate private sector development and job creation.

DOMINICA - BASIC EDUCATION REFORM PROJECT
PROJECT PREPARATORY STUDIES

The Following Project Preparatory Studies are Available in the Project Files:

1. Strengthening Management and Planning component.

Education Management and Planning, 1994, Dr.Una Paul

Cost and Financing of Education, May 1995, Dr. Ralph Henry.

Financial Management, June 1994, Mr. Livio Pino.

2. Qualitative Improvement of Basic Education Component.

Teacher Training Component, Dominica, June 1994, Dr. Arthur Richardson.

School Supervision Component, Dominica, 1994, Dr. Donald Foster.

Curriculum Development-Science, August 1994, Ms. June M. George.

Curriculum Development-Language Arts, September 1994, Dr. Ian Robertson.

Curriculum Development-Mathematics, July 1994, Dr. Ian Isaacs.

Curriculum Development-Social Studies, October 1994, Ms. Betty Ann Rohlehr.

Educational Testing and Measurement, July 1994, Dr. Larry Skurnik.

Production, Procurement and Evaluation of Teaching Materials, June 1994, Mr. Daniel Koh.

3. Expansion of Access Component

School Location Planning Study, October 1994, Mr. Rene Corradine.

Inventory of School Resources, July 1994, Mr. Michael Owen.

Protype Design and Site Survey, Watkins, Phillips, Bynoe & Partners Consultants *(on-going)*

Inventory of School Plant and maintenance Requirements, Watkins, Phillips, Bynoe & Partners Consultants *(on-going)*

SCHEDULES OF ACCOMMODATION FOR PROPOSED NEW CONSTRUCTION (in sq.ft.)

1. ADMINISTRATIVE OFFICES–TTC Complex

UNIT	Office	Proposed Area (sq./ft.)
Senior Management	Chief Education Officer (CEO)	140
	Deputy CEO (P&D)	100
	Deputy CEO (Schools)	100
	Canteen	1000
	2 Secretaries & Waiting Area	150
	Subtotal	**1490**
Educ. Planning & Statistics	Planning Officer	90
	Research Officer	80
	Statistician	90
	Planning & Statistics Assts.	60
	Typist & Filing	80
	Documentation	220
	Subtotal	**620**
Project Management	Project Manager	90
	Accountant	80
	Procurement Officer	80
	Buildings Officer	80
	Procurement Asst.	60
	Maintenance Supervisors (2)	120
	Typist & Waiting Area	80
	Storeroom (incl. a/c space)	480
	Subtotal	**1070**
Testing & Exams	Testing Officers (2)	180
	Testing Asst.	60
	Machine Room & Operator	190
	Vault	240
	Typist & Clerk	100
	Examinations Section	240
	Subtotal	**1010**
Curriculum Development	EO Curriculum	90
	4 Curriculum Supervisors	320
	Other offices for Curr. Supervisors (4)	320
	Typist & Clerk	100
	Curriculum Asst.	60
	Subtotal	**890**
School Supervision	SEOs--(a) Primary (b) Secondary	180
	District EOs based in Roseau (2)[1] & Reserve (1)	240
	Clerk/Typist	60
	Subtotal	**480**
Reading Materials	Editors (2)	180
	Art Editorial Asst (Graphics Artist)	80
	Editorial Assistant	80
	Production Area & Machine Operator	280
	Typist & Clerk (2)	100
	Carrels for part-time Writers	140
	Subtotal	**860**
Communal	Ablution	360
	Meeting Rooms (500, 200)	700
	Garage Covered Area	1200
	Subtotal	**2260**
SUBTOTAL		**8680**
Walls & Circulation	@ 25%	2170
Total Base Area		**10850**

[1]Assumption that the two remaining ones are based in Portsmouth and Castle Bruce.

2. SECONDARY SCHOOL—Castle Bruce

Assumptions: (See Tables 1 and 2 for calculation of needs)

A. General Secondary, Co-educational (curriculum as in schedule of Accommodation).

B. Total--525 places (3 streams--15 classes (35 each); minor attrition in Forms 4-5).

SPACE REQUIREMENTS (in sq.ft.)		**20,900**
Administrative:		**1,300**
(Principal 120; Staff (22) 480; Stores 100; Ablution 220; Bursar/Secretary 240; Rest area ("sick bay") 140.		
Teaching:		**12,535**
Classrooms--15 @ 525 =7,875; Home Economics 1,000; Science 1,660 (Chem/Physics 720, Biology/Agriculture 720, Prep, 220); Industrial Arts, 800; Agriculture shed, 600;		
Communal:		**2,060**
(Ablution 900; Canteen 400; Library 760)		
	Sub-total	**15,895**
Walls & Circulation at 25%		**3,974**
Open Covered area		**1,000**
TOTAL		**20,869**

3. SECONDARY SCHOOL--PORTSMOUTH

(a) Master Plan for Development of the School compound

(b) Extension:

I. SPACE REQUIREMENTS OF EXTENSION (in sq.ft.)

A. **Teaching:** (13 classrooms @ 525--6825; Biol/Ag. Lab. 720, Prep 100)	**7,645**
B. **Communal:** Ablution--300	**300**
Sub-total	**7,945**
C. **Walls & Circulation at $ 25%**	**1,986**
D. **TOTAL**	**9.931**

4. **PORTSMOUTH Schools Library Service-**

Provision of a Schools Library Service Center to provide library services to the schools of the North, comprising library work space
and storage space, reading room for Portsmouth schools, garage for bookmobile, ablution and special site works.

I. SPACE REQUIREMENTS in sq.ft.

Administrative space	180
Reference	80
Equipment & Shelving	220
Work & Storage Space	220
Reading & Collection Area	600
Ablution	100
Garage	500
Walls/Circ. (@25%)	475
Total	**2,375 sq.ft.**

5. **DISTRICT EDUCATION OFFICE--CASTLE BRUCE**

I. SPACE REQUIREMENTS: **2,100**

A. **Administrative: 550**

(DEO 100; Secretary/lobby 100; Store/copy room 200: Other offices 150:)

B. **Communal: 350**

(Ablution 200; Canteen 150)

C. **Seminar Spaces: 840**

(Library workspace and shelves 240; adjoining Lecture room 600)

Sub-total 1,740

D. **Walls & Circulation at 20% 348**

E. **TOTAL 2,048**

WORKSHEET: SCHEDULE OF ACCOMMODATION

Table 2

CLASS PERIODS BY SUBJECT Castle Bruce Secondary School (35 periods/week, 45 mins. each; 525 students; 15 forms)

Subject	Form 1		Form 2		Form 3		Form 4		Form 5		Weekly Periods Req'd	Period Distribution		
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)		Class rooms	Lab	Prac. Room
Eng. Lang.	5	15	5	15	5	15	5	15	5	15	75	75		
Eng Lit.	2	6	2	6	2	6	5	5	5	5	28	28		
Mathematics	6	18	5	15	5	15	5	15	5	15	78	78		
Geography							5	5	5	5	10	10		
History							5	5	5	5	10	10		
Soc. Studies	5	15	5	15	5	15	5	10	5	10	65	65		
Physics							5	5	5	5	10		10	
Chemistry							5	5	5	5	10		10	
Biology							5	5	5	5	10		10	
Int. Sci.[2]	5	15	5	15	5	15	5	5	5	5	55	15	30	10
Phys. Educ.	3	9	2	6	2	6	-	-	-	-	21			21
Family Life	1	3	1	3	1	3					9	9		
Music	2	6	3	9	2	6					21	21		
Home Econ.	2	6	2	6	2	6	-	-	-	-	18	5		13
Food/Nutrit.							5	5	5	5	10			10
Cloth./Text.							5	5	5	5	10			10
Spanish	2	2	2	2	3	3	5	5	5	5	17	17		
French	2	4	3	6	3	6	5	10	5	10	36	36		
Ind. Arts	2	6	2	6	2	6					18			18
Tech. Draw														
Bldg Tech.							5	5	5	5	10			10
Total Periods	35		35		35		70		70		521	369	60	92
Spaces Required												15	2	4
Use factor at 35 periods per week.												70 %	86%	below

Note (a) = no. of periods; Note (b) = no. of classes x no. of periods.

Specialist Teaching Spaces	Periods	Use Factor
Science labs--Chem/Phys; Biol/Agric.	60	86%
(a) Home Ec. 1; (b) Ind. Arts 1.	(a) 33 (b) 28	(a) 94% (b) 80%
Covered Area (Phys. Ed.)	18	51%
Agricultural Plot & Shed	10	29%

[2]Includes Agriculture in Forms 1-3.

WORKSHEET FOR DETERMINING TEACHER NEEDS

Table 3

Subject	Total Periods	Distribution of Periods by teacher specialization								
		English	Maths	Music	Sci.	Home Ec.	French	Ind. Arts	Soc. Studies	Phys Ed.
Eng. Lang	75	75								
Eng. Lit.	28	28								
Maths	78		78							
Chemistry	10				10					
Physics	10				10					
Biology	10				10					
Int. Sci.	55				54			1		
History	10								10	
Geography	10								10	
Soc. Studies	65								65	
French	36						36			
Spanish	17						17			
Family Life	9			3		6				
Phys. Ed.	21									21
Music	21			21						
Home Ec.	18					18				
Food/Nutrit	10					10				
Cloth/Tex.	10					10				
Ind. Arts	18							18		
Bidg tech.	10							10		
Total	521	103	78	24	84	44	53	29	85	21
Teachers Required	21[3]	4	3	1	3	2	2	1	3	1
Average Teacher Load		26	26	24	28	24	27	29	28	21

[3]Includes one to make up for the Vice-principal and department Heads who would have a lighterr than ordinary teaching loads (e.g. the VP 20%. less and the deparetment heads 10-15% less). Bearing in mind current practice in Dominica and the desired goals in regard to teacher to student ratios, the school should be allowed approximately:

Year 1--8 teachers (105 students); Year 2--13 teachers (210 students); Year 3--18 teachers (315 students); Year 4--20 teachers (420 students) and Year 5--21 teachers (525 students).

Annex 6

Table 1A

Dominica
Basic Education Project
Local/Foreign/Taxes by Financiers
(US$)

	IBRD/IDA		The Government		Total	
	Amount	%	Amount	%	Amount	%
I. Foreign	6,051,785	98.9	66,826	1.1	6,118,611	77.1
II. Local (Excl. Taxes)	88,706	6.9	1,204,335	93.1	1,293,041	16.3
III. Taxes	-	-	528,473	100.0	528,473	6.7
Total Project	6,140,491	77.3	1,799,635	22.7	7,940,126	100.0

Table 1B

Dominica
Basic Education Project
Expenditure Accounts Project Cost Summary

	(EC$ '000)			(US$ '000)			% Foreign xchang	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
Investment Costs								
Civil Works								
Construction of Office Space	766	1,788	2,554	284	662	946	70	14
Construction and Expansion of Schools	1,648	3,846	5,494	610	1,424	2,035	70	30
Renov./Repair of Schools	414	966	1,380	153	358	511	70	7
Subtotal Civil Works	2,828	6,599	9,427	1,047	2,444	3,492	70	51
Goods								
Equipment and Furniture								
Computers, Printers and Software	31	584	615	11	216	228	95	3
Other Equipment	45	846	890	16	313	330	95	5
Vehicles	23	433	456	8	161	169	95	2
Furniture	253	470	723	94	174	268	65	4
Subtotal Equipment and Furniture	351	2,333	2,684	130	864	994	87	14
Books&Educat.Materials	51	962	1,013	19	356	375	95	5
Supplies and Miscell.	33	626	658	12	232	244	95	4
Subtotal Goods	435	3,921	4,355	161	1,452	1,613	90	23
Technical Assistance								
Works Design/Eng./SPN	113	1,018	1,131	42	377	419	90	6
Experts	264	793	1,057	98	294	391	75	6
Fellowships	83	1,580	1,663	31	585	616	95	9
Training	190	190	379	70	70	141	50	2
Studies	173	173	346	64	64	128	50	2
Subtotal Technical Assistance	823	3,753	4,576	305	1,390	1,695	82	25
Total Investment Costs	4,086	14,273	18,359	1,513	5,286	6,800	78	99
Recurrent Costs								
Maintenance								
Equipment	105	157	262	39	58	97	60	1
Total Recurrent Costs	105	157	262	39	58	97	60	1
Total BASELINE COSTS	4,191	14,430	18,621	1,552	5,345	6,897	77	100
Physical Contingencies	468	1,293	1,761	173	479	652	73	9
Price Contingencies	181	555	735	96	295	391	75	6
Total PROJECT COSTS	4,840	16,278	21,118	1,822	6,119	7,940	77	115

Annex 6
Table 1C

Dominica
Basic Education Project
Project Components by Year – Totals Including Contingen
(US$ '000)

	Totals Including Contingencies					
	1996	**1997**	**1998**	**1999**	**2000**	**Total**
A. Strengthening Management and Planning						
A1. Senior Management	252	37	8	5	5	309
A2. Planning and Development	211	89	15	11	9	336
A3. Project Management	436	19	22	18	18	514
Subtotal A. Strengthening Management and Planning	900	146	46	34	33	1,159
B. Qualitative Improvement						
B1. School Supervision	110	49	258	19	18	454
B2. Testing and Measurement	279	77	85	18	19	457
B3. Educational Materials	362	83	67	20	24	556
B4. Curriculum Development	220	105	58	8	13	403
B5. Teacher Training	61	63	66	45	33	268
B6. School Library system	327	250	43	16	7	643
Subtotal B. Qualitative Improvement	1,360	626	556	127	113	2,782
C. Expansion and Conservation of School Places						
C1. New Secondary Schools	356	1,732	7	7	7	2,109
C2. Expansion of Secondary Schools	-	-	23	1,028	-	1,051
C3. Renovation of Schools	121	175	179	180	184	840
Subtotal C. Expansion and Conservation of School Places	477	1,907	208	1,215	191	4,000
Total PROJECT COSTS	2,737	2,680	810	1,376	337	7,940

Table1D

Dominica
Basic Education Project
Expenditure Accounts by Components - Totals Including Contingencies
(US$ '000)

	A. Strengthening Management and Planning			B. Qualitative Improvement						C. Expansion and Conservation of School Places			
	A1. Senior Managemen	A2. Planning and Developmen	A3. Project anagement	B1. School Supervision	B2. Testing and easuremen	B3. Educationa Materials	B4. Curriculum evelopmen	B5. Teacher Training	B6. School Librar system	C1. New econdar Schools	C2. Expansion of econdar Schools	C3. enovation of Schools	Total
Investment Costs													
Civil Works													
Construction of Office Space	155	74	156	232	113	98	100	-	167	-	-	-	1,097
Construction and Expansion of Schools	-	-	-	-	-	-	-	-	-	1,651	832	-	2,483
Renov./Repair of Schools	-	-	-	-	-	-	-	-	-	-	-	634	634
Subtotal Civil Works	155	74	156	232	113	98	100	-	167	1,651	832	634	4,214
Goods													
Equipment and Furniture													
Computers, Printers and Software	16	25	90	-	43	34	19	12	3	-	-	-	244
Other Equipment	4	4	11	23	45	11	3	14	4	176	70	-	363
Vehicles	-	-	-	-	28	-	-	-	157	-	-	-	185
Furniture	7	8	13	21	12	23	13	-	14	82	35	69	297
Subtotal Equipment and Furniture	26	37	114	44	128	69	34	26	178	258	104	69	1,088
Books&Educat.Materials	6	6	6	24	6	166	83	12	96	-	-	-	404
Supplies and Miscell.	12	25	37	32	35	68	15	32	20	-	-	-	276
Subtotal Goods	44	68	157	100	168	302	133	70	295	258	104	69	1,769
Technical Assistance													
Works Design/Eng./SPN	16	8	16	24	12	10	10	-	20	172	87	66	442
Experts	58	58	134	-	59	59	-	-	-	-	-	59	428
Fellowships	21	102	27	59	59	59	119	90	138	-	-	-	675
Training	-	-	-	19	14	9	20	90	6	-	-	-	157
Studies	12	21	12	11	13	11	11	11	6	-	23	11	143
Subtotal Technical Assistance	108	188	189	114	158	149	161	191	169	172	109	137	1,846
Total Investment Costs	307	331	503	446	439	549	394	261	632	2,082	1,046	840	7,829
Recurrent Costs													
Maintenance													
Equipment	2	6	11	8	18	7	9	7	11	27	5	-	111
Total Recurrent Costs	2	6	11	8	18	7	9	7	11	27	5	-	111
Total PROJECT COSTS	309	336	514	454	457	556	403	268	643	2,109	1,051	840	7,940
Taxes	30	22	49	23	26	25	10	-	17	165	83	78	528
Foreign Exchange	234	275	408	349	371	473	336	207	555	1,548	784	598	6,119

Annex 6
Table 2A

Dominica
Basic Education Project
Components by Financiers
(US$)

	IBRD/IDA		The Government		Total			Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	For. Exch.	Taxes)	Taxes
A. Strengthening Management and Planning									
A1. Senior Management	234,782	76.1	73,789	23.9	308,571	3.9	233,808	44,763	30,001
A2. Planning and Development	274,551	81.6	61,892	18.4	336,444	4.2	275,050	39,487	21,907
A3. Project Management	407,367	79.3	106,565	20.7	513,932	6.5	408,284	56,475	49,173
Subtotal A. Strengthening Management and Planning	916,700	79.1	242,246	20.9	1,158,946	14.6	917,141	140,724	101,081
B. Qualitative Improvement									
B1. School Supervision	350,450	77.2	103,690	22.8	454,140	5.7	349,479	81,429	23,233
B2. Testing and Measurement	366,543	80.1	90,929	19.9	457,472	5.8	371,471	59,838	26,163
B3. Educational Materials	479,642	86.3	76,138	13.7	555,781	7.0	472,792	58,356	24,633
B4. Curriculum Development	336,218	83.4	67,076	16.6	403,294	5.1	336,479	56,769	10,045
B5. Teacher Training	204,209	76.3	63,524	23.7	267,733	3.4	206,578	61,155	-
B6. School Library system	557,487	86.7	85,746	13.3	643,233	8.1	554,837	71,666	16,730
Subtotal B. Qualitative Improvement	2,294,550	82.5	487,103	17.5	2,781,653	35.0	2,291,635	389,213	100,805
C. Expansion and Conservation of School Places									
C1. New Secondary Schools	1,550,355	73.5	558,862	26.5	2,109,216	26.6	1,548,012	396,092	165,112
C2. Expansion of Secondary Schools	768,552	73.1	282,115	26.9	1,050,666	13.2	763,508	203,933	83,225
C3. Renovation of Schools	610,334	72.7	229,310	27.3	839,644	10.6	598,316	163,078	78,250
Subtotal C. Expansion and Conservation of School Places	2,929,241	73.2	1,070,286	26.8	3,999,527	50.4	2,909,836	763,104	326,588
Total Disbursement	6,140,491	77.3	1,799,635	22.7	7,940,126	100.0	6,118,611	1,293,041	528,473

Annex 6
Table 2B

Dominica
Basic Education Project
Expenditure Accounts by Financiers
(US$)

	IBRD/IDA		The Government		Total			Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	For. Exch.	Taxes)	Taxes
Investment Costs									
Civil Works									
Construction of Office Space	767,761	70.0	329,040	30.0	1,096,801	13.8	767,761	219,360	109,680
Construction and Expansion of Schools	1,738,363	70.0	745,013	30.0	2,483,375	31.3	1,738,363	496,675	248,338
Renov./Repair of Schools	443,636	70.0	190,130	30.0	633,766	8.0	443,636	126,753	63,377
Subtotal Civil Works	2,949,759	70.0	1,264,183	30.0	4,213,942	53.1	2,949,759	842,788	421,394
Goods									
Equipment and Furniture									
Computers, Printers and Software	237,675	97.5	6,094	2.5	243,770	3.1	231,581	12,188	-
Other Equipment	354,236	97.5	9,083	2.5	363,319	4.6	345,153	18,166	-
Vehicles	179,920	97.5	4,613	2.5	184,534	2.3	175,307	9,227	-
Furniture	244,664	82.5	51,898	17.5	296,562	3.7	192,765	103,797	-
Subtotal Equipment and Furniture	1,016,495	93.4	71,689	6.6	1,088,184	13.7	944,806	143,378	-
Books&Educat.Materials	394,308	97.5	10,110	2.5	404,419	5.1	384,198	20,221	-
Supplies and Miscell.	269,351	97.5	6,906	2.5	276,258	3.5	262,445	13,813	-
Subtotal Goods	1,680,155	95.0	88,706	5.0	1,768,860	22.3	1,591,449	177,412	-
Technical Assistance									
Works Design/Eng./SPN	398,223	90.0	44,247	10.0	442,470	5.6	398,223	44,247	-
Experts	321,238	75.0	107,079	25.0	428,317	5.4	321,238	-	107,079
Fellowships	640,799	95.0	33,726	5.0	674,525	8.5	640,799	33,726	-
Training	78,587	50.0	78,587	50.0	157,174	2.0	78,587	78,587	-
Studies	71,730	50.0	71,730	50.0	143,461	1.8	71,730	71,730	-
Subtotal Technical Assistance	1,510,577	81.8	335,370	18.2	1,845,947	23.2	1,510,577	228,290	107,079
Total Investment Costs	6,140,491	78.4	1,688,258	21.6	7,828,749	98.6	6,051,785	1,248,490	528,473
Recurrent Costs									
Maintenance									
Equipment	-	-	111,377	100.0	111,377	1.4	66,826	44,551	-
Total Recurrent Costs	-	-	111,377	100.0	111,377	1.4	66,826	44,551	-
Total Disbursement	6,140,491	77.3	1,799,635	22.7	7,940,126	100.0	6,118,611	1,293,041	528,473

DOMINICA
BASIC EDUCATION REFORM PROJECT

Estimate of Recurrent Costs Impact Generated by the Project (excluding Debt service)

1. Incremental annual recurrent costs would be generated by the project by the year 2000 in regard to:

   (a) new positions in the MOE Establishment including the library service and related travel and office and general expenses;

   (b) increased allowances for materials and supplies and for operations and maintenance in primary and secondary schools;

   (c) additional costs of maintaining the equipment and furniture supplied under the project,

   (d) the costs related to additional 735 secondary school places provided by the project comprising (i) teacher salaries; (ii) non-teacher salaries; and (iii) non-salaries expenditure

   (e) cost of maintenance of the new office buildings (the DEO office in Castle Bruce, MOE building and Library building in Portsmouth) ; and

   (f) cost of supplies for the expanded SLS.

2. The Appendix to Annex 3 sets out the recurrent cost implications of the adjustment of teacher to student ratios and the transfer of savings to other purposes. As Table 4 of that Appendix shows, items listed in paragraph 1 above that are accommodated within the anticipated savings are: (a); (b);(d)(i);(d)(iii)

3. Costs estimated for the items that have not been covered by the savings are as follows:

   (1) non-teaching salaries at Castle Bruce Secondary -EC$48,000 and

   (2) maintenance of new office and library equipment and furniture - EC$ 125,000

   (3) maintenance of new office and library buildings - EC$270,000; and

   (4) supplies for operating the expansion to School Library Service - EC$75,000

This total of EC$518,000 is offset by the excess of savings (EC$663,959 rising to $1,000,000) shown in Table 4 of the Appendix to Annex 3.

4. Consequently, no net incremental recurrent cost is anticipated as a result of the project and the adjustment program. As table 5 of the appendix to annex 3 shows, the MOE budget is expected to rise over the project implementation period at a rate slower than that of the expected increase in the national budget and these increases in the MOE budget are not attributable to the project.

	CY95	CY96	CY97	CY98	CY99	CY00
	O N D	J F A J J A S O N D	J F A J J A S O N D	J F A J J A S O N D	J F A J J A S O N D	J F A J J A S O N D
Civil Works						
(a) Castle Bruce School (new)	d d	i l i b b a a c c c c c	c c c c c c c c c c g g g	g g g		
(b) Portsmouth School (extension)				d d d i i i b b a a	c c c c c c c c c g g g	g g g
(c) MOE Offices + Library in Portsmouth	d d	i i b b a c c c c c c c	g g g g g g			
(d) DEO Office in Castle Bruce		d d	i i b b a c c c c c c c	g g g g g g		
(e) Renov./Repair of Schools		d d i i b a a	c c c c d d i i b a a	c c c c d d i i b a a	c c c c d d i i b a a	c c c c d d i i b a a
Furniture/Equipment/Supplies						
(a) PMU	l i y	n				
(b) Other MOE (incl.vehicles) + SLS in Portsmouth	l l	i i b b a a y	n			
(c) DEO Office - Castle Bruce		l l	i i b b a a y y n			
(c) Castle Bruce Sec.	l	l l l i i i b b b	a a y y n			
(d) Portsmouth Sec.				l l l i i	b b a y y n	
(e) Renovated Schools		d d i i b a a	y n d d i i b a a	y n d d i i b a a	y n d d i i b a a	y n d d i i b a a
(f) School Supplies a:School Kits	l	l i i b a y y l	l i i b a y y			
b: Books and Supplies	l	l i i b a y y				
(g) Refrence Materials for MOE		l l i i b b a a y y				
Experts						
(a) Management, Planning (2@2sm each)	r	r o o	o o			
(b) General publishing and Educational testing (2@2sm each)		r r r	o o	o o		
(c) Project Management (1@6sm)	r r r	o o o o o o				
(d) Procurement (1@2sm)	r r r	o o				
Fellowships						
(a) Senior managers	p p p	o o o o				
(b) PMU	o	o o o o				
(c) Library Chief		o				
(d) **Starting in 96 @12 months**: Finac. Analyst (1); Statistician (1); Planner(1), Curriculum Spec.(2), School Supervisor (1), Testing Spec.(1), Art Editing (1),Teacher Trainer (1), Library Technician (1)		s s p p p o o o o	o o o o o o o o			
(d) **Starting in 97 @12 months**: Curriculum Spec.(2), School Supervisor (1), Testing Spec.(1), General Editing (1),Teacher Trainer (1), Library Technician (1)			s s p p p o o o o	o o o o o o o o		
(e) **Starting in 98 @12months**: Teacher trainer (1)				s s p p p o o o o	o o o o o o o o	
(f)**Starting in 96 @3 years**: Librarian (1 @ 3 sy)		s s p p p o o o o	o o o o o o o o o o	o o o o o o o o o o	o o o o o o o o o	
Local Training		x x x x	x x x	x x x	x x x	x x x
Studies		x x x x x x x x x x	x x x x x x x x x x x x	x x x x x x x x x x x x	x x x x x x x x x x x	x x x x x x x x x x x

KEY:

a: Award of Contract	n: Installation of equipment
b: Bid Analysis	o: On the job or Fellowships
c: Construction	p: Placement of fellows
d: Architectural Design	r: Recruitment of experts
g: Guaranty/Liability period	s: Selection of fellows
i: Invitation to bid	x: Conduct of study or local training
l: Equipment list preparation	y: delivery of equipment/furniture/supplies

DOMINICA: BASIC EDUCATION REFORM PROJECT
TECHNICAL ASSISTANCE PROGRAM

Sub Component or Category	No. of persons	Duration in Months	Purpose[1]
A. **EXPERTS**			
Management/Administration	1	4	To assist MOE to streamline admin. structure and procedures
Planning	1	4	To assist MOE in long range sector plan & related studies
Project Management	1	8	To help launch PMU and coordinate project implementation
Procurement	1	2	Preparing equipment lists etc., packages & tender documents
General Editing	1	2	To help in launching Educ. Materials Unit and in policy formulation on textbooks procurement and production
Production of Reading Materials	1	4	To initiate desktop publishing and production tasks
Educational Testing	1	4	To help set up ETX, reform existing tests, design new tests and establish groundwork for studies
B. **FELLOWSHIPS**			
Senior Management	3	4	For study tours & seminars relevant to educational reform.
Economics of Education	1	12	Advanced training in economics of education, operations research and finanial analysis
Planning	1	12	Advanced training in Educ. Planning (IIEP) and attachment
Statistics	1	12	Advanced training in Statistics and use of computers (UWI)
Project Management	3	5	Study tours of comparable PMUs, seminars
The Training of Teachers	3	36	To upgrade TTC tutors in training of teachers, one in each core area
School Supervision	2	24	Advanced training in school supervisory methods, school management, and effectiveness; and attachments (UWI)
General Editing	1	12	Advanced training in editing & publishing; attachment to publishing house
Art Editing	1	12	Advanced training in art editing, publishing, illustrating and book layout; attachment to a publishing house
Educational Testing & Measurement	2	24	Advanced training in educational testing and related research; attachment to CXC
Curriculum Development	4	48	Advanced training in techniques of curriculum design, research and supervision and attachment (UWI)
School Library Service (Technician)	2	12	Advance training for library technicians
School Library Service (Librarianship)	1	36	Post graduate training in librarianship

[1]. In addition to the brief description of purpose given here, it would be required that each expert train counterparts (and other staff as indicated in terms of reference) and prepare manuals as may be deemed necessary. The returned fellows would also be required to prepare reports for circulation among their peers and to conduct seminars for appropriate groups to communicate some of the benefits derived from their training.

Table 3

Dominica
Basic Education Proje
Disbursement Foreca
(US$)

	Project Costs	IBRD/IDA Amount	By Semester	The
1	1,368,652	1,107,128	261,524	
2	1,368,652	1,107,128	261,524	1996
3	1,339,803	1,044,319	295,484	
4	1,339,803	1,044,319	295,484	1997
5	404,838	303,716	101,123	
6	404,838	303,716	101,123	1998
7	688,209	499,252	188,956	
8	688,209	499,252	188,956	1999
9	168,562	115,831	52,730	
10	168,562	115,831	52,730	2000
Total	7,940,126	6,140,491	1,799,635	

(*) Government financing equals US$1.3 million net of taxes

Table 4

DOMINICA
Basic Education Reform Project
Suggested allocation of credit and Loan Proceeds

	Credit SDRs (000) (*)	Loan US$ (000)	Disbursement Percentage
1. Civil Works			
Construction and Expansion and Prof. Fees (**	860.0	1,294.0	72% of total costs
Renov./Repair of Schools and Prof. Fees	130.0	193.0	72% of total costs
2 Goods			
Equipment, Educational Material, Books and F	530.0	800.0	100% of foreign expenditure and 50% of local expenditure
3 Consultants' Services	100.0	153.0	75% of eligible expenditure
4 Fellowships	200.0	305.0	95% of eligible expenditure
5 Studies and local training	50.0	72.5	50% of eligible expenditure
Unallocated	230.0	252.5	
Total	2,100.0	3,070.0	

(*) US$/SDR = 1.50374

(**) Construction of a new secondary school in Castle Bruce, expansion of an existing secondary school in construction of one District education Office in Castle Bruce, Office space for MOE new management, School Library Service center in Porthsmouth.

Annex 7

Table 5

Monitoring Indicators

DOMINICA: BASIC EDUCATION REFORM PROJECT
MONITORING AND EVALUATION INDICATORS

Monitoring and evaluation (M & E) will include both the achievement of specific targets and objectives (mainly monitoring) and the realization of results or outcomes (more generally, evaluation). As there are no precise indicators or benchmarks of quality and institutional development, imperfect and subjective indicators will need to be used.

SECTION 1. IMPLEMENTATION MONITORING INDICATORS

		Significant Measure of Achievement		
Project Component or Item	Indicators	Overall target	Expected achievement at this point	Actual achievement of completion (as % of expected achievement where possible)
Expert Services	Field of Specialization: e.g. Proj. Mgt			
	No. of expert months.	e.g 6	e.g 4	e.g 2 (33%)
	Conduct of work.	100%	70%	e.g 35%
Fellowships or Study tours	Field of Specialization: e.g. Curr. Dev.			
	No. to be awarded;	4	2	2 (100%)
	Months of study abroad;	43	10	10 (100%)
	No. of recipients completed training	4	1	
	No. returned to job	4	1	
Local training	Field of Training:_____			
	Seminars/workshops intended: (a)...			
	(b)...			
	No. of participants envisaged: (a)...			
	(b)...			
	No. of counterparts trained by experts			
Studies	List of Agreed studies:			
	EPU: (i) Topic:_____.			
	a. Terms of reference	100%	100%	100%
	b. Mobilization of resources (staff etc.)	100%	100%	75%
	c. Conduct of work	100%	60%	etc.
	d. Draft Report	etc.		
	e. Final Report			
	f. Adoption of recommendations	100%	-	-
	g.Implementation of recommendations	100%	-	-
	(ii) Topic:_____			
	(iii)....			
	PMU: (i)			
	etc.***			
Adjustment Program	1. Budget Figures:			
	a. Ratios of non-salary to salary expenditure:	e.g		
	(i) Primary Schools	9:91	6:94	5:95 (83.3%)
	(ii) Secondary Schools	11:89	7:93	6:94 (85.7%)
	b. Percentange Increase in Administrative budget (%)	40	32	25 (78%)
	2. Teacher to student ratios:			
	(a) Primary	1:30	1:28	1:27.3 (97.5%)
	(b) Secondary	1:25	1:22	1:21.5 (97.7%)

SECTION 1. IMPLEMENTATION MONITORING INDICATORS (Cont.)

Institutional Strengthening	Unit (EPU, PMU, ETX etc.)	Summary of Objectives & Targets	Expected achievement at this point	Summary of Achievement
	EPU			
	a. Establishment of Posts	7	7	7 (100%)
	b. Filling of Posts	7	6	6 (100%)
	c. Training of Staff	100%	50%	60%
	d. Adoption of Work Program	100%	100%	100%
	e. Execution of Work Program	100%	40%	35%
	PMU			
	a. Establishment of Posts			
	b. Filling of Posts			
	c. Training of Staff			
	d. Adoption of Work Program			
	e. Execution of Work Program			
	ETX			
	a. Establishment of Posts			
	b. Filling of Posts			
	c. Training of Staff			
	d. Adoption of Work Program			
	e. Execution of Work Program			

SECTION 1. IMPLEMENTATION MONITORING INDICATORS (Cont.)

Hardware

Items	Originally scheduled Dates	% of completion (by value/time allowed) originally scheduled to be completed as of this date	Actual achievement (as % of overall volume or value) at the time of this date	Comments
Civil Works:				
a) *MOE Office Building*				
(i) From start of design to From start of design to cotract signing (% of time)				
(ii) from contract signing to handover (% of value)				
b) *Castle Bruce Secondary*				
(i) From start of design to contract signing (% of time)				
(ii) from contract signing to handover (% of value)				
c) *Porstmouth Secondary*				
(i) From start of design to contract signing (% of time)				
(ii) from contract signing to handover (% of value)				
d) *DEO Office Building*				
(i) From start of design to contract signing (% of time)				
(ii) from contract signing to handover (% of value)				
e) *Schools Library Centers*				
(i) From start of design to contract signing (% of time)				
(ii) from contract signing to handover (% of value)				

Designs ---> Bid invitation ---> Bid Analysys --> Award of Contract

contract signing ---> Construction ---> Handover

SECTION 1. IMPLEMENTATION MONITORING INDICATORS (Cont.)

Rehabilitation of Schools:	Original Schedule for Design to Handover	Achievement as of this monitoring	Comments
School 1 (name)	e.g Jan 1996 - May 1996	On schedule (100% of target)	
School 2 (name)	--		e.g. excessive rain
School 3 (name)	--e.g March -Sept 1997	Delayed (10% of target)	
School 4 (---)	--		
School 5 (---)	--		

SECTION 1. IMPLEMENTATION MONITORING INDICATORS (Cont.)

Furniture, Equipment, Supplies:	Originally Scheduled Dates	% of completion (by value/time allowed) originally scheduled to be completed as of this date	Actual achievement (as % of overall volume or value) at of this date	Comments
a) *Office equipment*				
(i) From list preparation to Contract signing (% of time)				
(ii) From signing to delivery and installation (% of value)				
b) *Office furniture*				
(i) From list preparation to Contract signing (% of time)				
(ii) From signing to delivery and installation (% of value)				
c) *School Equipment*				
(i) From list preparation to Contract signing (% of time)				
(ii) From signing to delivery and installation (% of value)				
d) *School Furniture*				
(i) From list preparation to Contract signing (% of time)				
(ii) From signing to delivery and installation (% of value)				
e) *Vehicles*				
(i) From list preparation to Contract signing (% of time)				
(ii) From signing to delivery and installation (% of value)				
f) *Computers and related*				
(i) From list preparation to Contract signing (% of time)				
g) *Textbooks*				
(i) From list preparation to Contract signing (% of time)				
(ii) From signing to delivery and installation (% of value)				

SECTION 1. IMPLEMENTATION MONITORING INDICATORS (Cont.)

h) *Kits for Schools*
(i) From list preparation to Contract signing (% of time)
(ii) From signing to delivery and installation (% of value)
i) *Library Equipment*
(i) From list preparation to Contract signing (% of time)
(ii) From signing to delivery and installation (% of value)
i) *Library Furniture*
(i) From list preparation to Contract signing (% of time)
(ii) From signing to delivery and installation (% of value)
k) *Other*
(i) From list preparation to Contract signing (% of time)
(ii) From signing to delivery and installation (% of value)

SECTION 2. COST MONITORING

Component/Item	Appraisal Cost Estimate	Latest Revised Cost Estimate (date of revision)	Actual Cost for completed Item	Reasons for Change in Cost or Cost Estimate
(a) CIVIL WORKS:				
i. MOE OFFICES				
ii. Castle Bruce Secondary				
iii. Portsmouth Secondary				
iv. DEO Office Building				
v. Schools Libray Center				
vi. Rehabilitation Program (summary from latest update of list)				
(b) CONSULTANT PROFESSIONAL SERVICES				
(for civil works)				
(c) EQUIPMENT				
i. Office				
ii. School				
iii. Library				
iv Other				
(d) SUPPLIES & MATERIALS				
i. Office				
ii. School				
iii Library				
vi. Other				
(e) COMPUTERS & RELATED SOFTWARE				
(f) TEXTBOOKS				
(g) FURNITURE				
(h) FELLOWSHIPS				
(i) EXPERT SERVICES				
(j) STUDIES (Including Consultants used)				
(k) LOCAL TRAINING				
(l) REFERENCE LITERATURE				

SECTION 3: EVALUATION ISSUES AND INDICATORS

Unit or Activity	Nature of Expected Outcomes	Indications of Impact/Benefit
Senior Management: Financial Analysis	Incorporation of financial analysis into the operations of MOE	Value of studies done and their impact on policy at the macro and micro sector levels; Improvement of budget format so as to facilitate tracking of expenditure and allocations by level, school, category etc. Quality of analytical work.
Policy formulation	More systematic way of preparing for policy decisions	Evidence of more active tackling of key policy issues with emphasis on information, analysis & consultation
Planning & Statistics	Long Range Plan for the Sector	Extent of promotion of national discussion and debate on education; Comprehensiveness of plan and integration of objectives into macro economic development priorities; Responsiveness of planning to matters of cost effectiveness, equity and relevance to national needs. Acceptance of planning as an institutionalized necessity; Cooperation with OECS in development policy and plans.
	Statistical Data Base covering students teachers schools, MOE staff, expenditure, etc.	Utilization and dissemination of data, Comprehensiveness of coverage, Participation of unit in research in MOE, Relationship with external bodies (OECS, Central Statistical Office & other Gov't statistical units, etc.)
Project Management	Successful implementation of the project;	Evidence of capacity to implement and evaluate projects efficiently;
	Success in maintaining school buildings;	Views of principals on the effectiveness of delivery of goods and works;
	Improved procurement and distribution of supplies to the schools.	Improvement in the achievement of development program objectives.
Educational Testing & Measurement	New and revised Tests; item banks; research; norms & standards; analysis and dissemination of test results.	Use of test results in design of new tests, research, reading materials, school supervision strategies, syllabus and curriculum development, teacher training. Evidence of increased capacity in testing and related work.
Teacher training	Increase in numbers of teachers trained on an inservice basis; Improved average qualifications of teachers; Reduced attrition of teachers;	Evidence of actual improvement in methods of teaching as indicated in use of materials, focus on problem solving, test and examination results. Evidence of increased teacher training capacity.
Curriculum Development & Supervision	Substantial progress in renewal of syllabi and curricula; Improved inter-grade and inter-cycle coordination of curricula and syllabi. Greater clarity of objectives and the required teaching strategy; Increased emphasis on local examples and local setting where appropriate and on problem solving and reflection demanded of students.	Improved academic performance and evidence of impact on lifestyles (health, safety, social conscience). Evidence of greater institutionalized capacity in curriculum design, research and supervision.
Educational Materials Procurement and Production	Volume and range of output of new, supplementary and other materials. Improvements in policies and procedures relative to procurement of educational reading materials.	Evidence of capacity to design, prepare and produce materials. Evidence of use of materials produced; Evidence of user feedback on the quality and value of materials. Evidence of use of feedback in the revision of materials.
Schools Library Services	More intensive service too schools; training of teachers in use of library in teaching and in organizing collections.	Comparisons of performance of affected primary schools in CEE Before and after. Seminars conducted and participant evaluations of seminars. Follow-up reports and assessments by the SLS of teachers' work on the collections.

SECTION 4
Key Project Performance Indicators

Key Performance Indicators	Baseline	Mid-Project Targets	End-of Project Targets
1.Strengthening Planning and Management			
Quantity Indicators			
New MOE's Offices	0%	100%	100%
Salary/non salary expenditure adjustment program			
Teacher to Student ratios:			
(i) Primary Schools	1:21.6	1:24.5	1:26
(ii) Secondary Schools	1:16.6	1:18.6	1:20
EC$ spent per student per year (i) Primary Schools			
Supplies/Materials	9.5	15	37
Operations/Maintenance	10.9	15	32
(ii) Secondary Schools			
Supplies/Materials	17	30	49
Operations/Maintenance	7.6	250	40
Behavioral Indicators (observed through regular supervision visits)	*See Section 3*		
2. Improving the Quality of Basic Education			
Quality Indicators			
Common Entrance Examination	1995 Test Scores	Plus 10%	Plus 20%
Quantity Indicators			
New School Library Building in Portsmouth	0	100%	100%
Availability of Appropriate Textbooks	70% of primary school population	85% of primary school population	95% of primary school population
Professionally trained teachers in Primary Schools	37%	47%	60%
Availability of Instructional Materials and Equipment (observed through regular supervision visits)	Very limited	Improved	Improved
Behavioral Indicators (observed through regular supervision visits)			
Teachers' knowledge of appropriate curriculum and design of lessons plans at each stage of child development.	Limited	Improved	Improved
Implementation of High Quality and Varied Teaching and Assessment Methods	Traditional Chalk/Board Techniques	Survey indicates positive change in at least 30% of schools	Survey indicates positive change in at least 60% of schools
3 . Expanding Access to Schools			
Quantity Indicators			
New School Buildings			
Extensions to Secondary Schools	0	1	1
New Secondary Schools	0	1	1
Secondary School Enrollment	54% of the 12-16 age cohort (net of repeaters older than 16 years of age)	58% of the 12-16 age cohort (net of repeaters older than 16 years of age)	64% of the 12-16 age cohort (net of repeaters older than 16 years of age)

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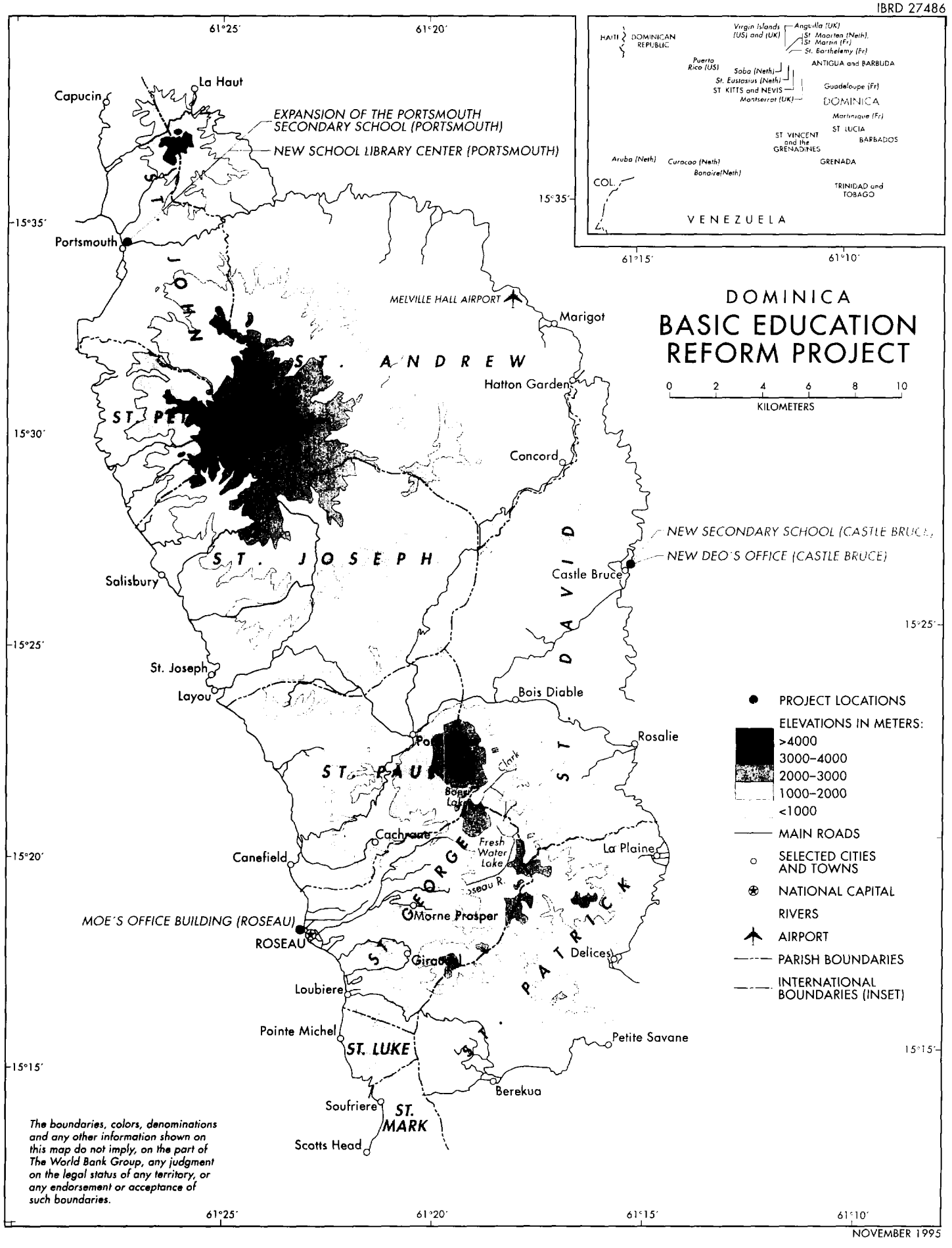

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