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**LA THÈSE A ÉTÉ
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Education for Endogenous Development in the 1980's and Beyond

A challenge for Emerging Caribbean Nations

**(A Comparative Analysis of Education Systems in
Antigua/Barbuda, Montserrat and St. Kitts/Nevis)**

Calvin A. Howell

A Thesis

in

The Department

of

Education

**Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Arts at
Concordia University
Montréal, Québec, Canada**

June 1984



Calvin A. Howell, 1984

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Abstract:

**Education for Endogenous Development in the 1980's and Beyond:
A Challenge for Emerging Caribbean Nations.**

Calvin A. Howell

The heritage of Colonialism shared by countries in the English - speaking Caribbean, mitigated against the development of independent institutions, policies or patterns of behaviour prior to emancipation. The period of "neo-colonialism" which followed, saw the perpetuation of this pattern of dependence and this has persisted in several facets of Caribbean life, including education.

The objective of this study is to examine the focus of education and schooling in the Caribbean island/nations of Antigua and Barbuda, Montserrat and St.Kitts-Nevis over the two decades 1960 to 1980 in an attempt to determine whether the policies and practices adapted are providing the youths of these territories with the basic tools to understand and address Caribbean problems, with a view to generating endogenous solutions during the 1980's and beyond.

Whereas the education systems introduced under colonialism were geared for all practical purposes to achieve minimum literacy and maximum dependence, current systems need to focus more on the on-going process of de-colonization by a movement away from the rigid, authoritarianism of the colonial era, to a system emphasizing freedom and self-reliance.

27

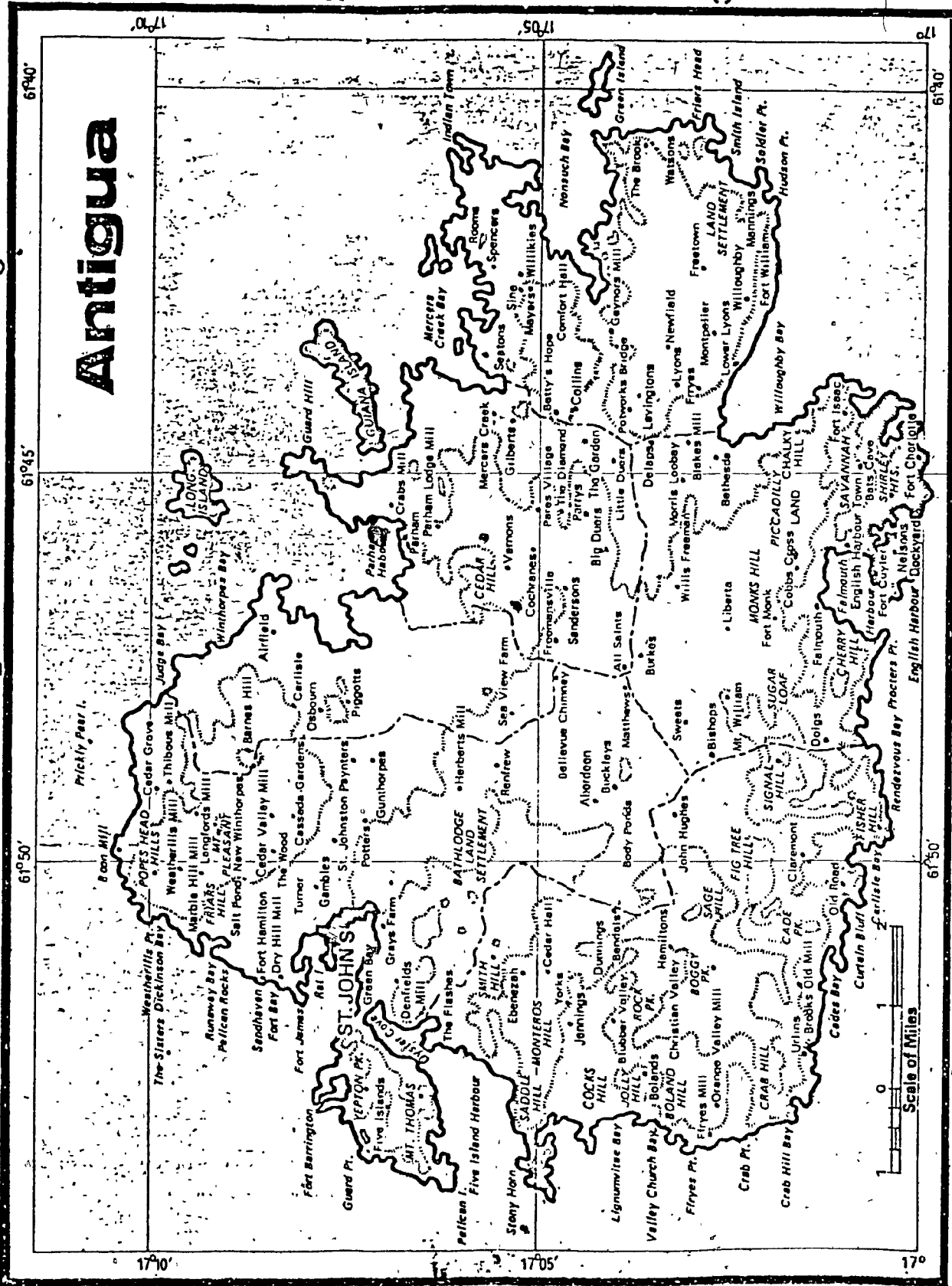
The method employed throughout is descriptive and analytical. Much of the historical information was obtained through interviews with head teachers, administrators, statisticians, community and political leaders in all three territories focused upon. Government documents, policy statements, unpublished reports and other historical sources are employed.

Review of development/underdevelopment theory, literature relative to education and development in general; and more specifically to education policies and practices in the Leeward Islands provide a conceptual and comparative framework.

Problems in educational planning are examined and alternative approaches which might be useful are suggested. The findings of the study suggest that formal education should be geared more to the immediate development needs of the area. Greater emphasis than currently obtains should be given to informal education and training and to non-formal education, bearing in mind, that whereas the effects of formal education are long-term (as many as twelve years or longer) non-formal education tends to have a more immediate impact on the economy. Education for Caribbean people must prepare them to provide solutions to development problems themselves so that they no longer have to look to outside forces for these solutions.

ACKNOWLEDGEMENTS

This study was made possible through the assistance extended by several people. Grateful appreciation is extended to: Professor Geoffrey Fidler of Concordia University for his invaluable guidance and constructive criticism; Professors Kari Levitt, Gary Anderson and Charles Lusthaus of McGill University for advice and assistance in securing material. Thanks are also extended to Lucene Bishop of Barbados, Dorothy Martin and the Staff of the Planning Unit of St. Kitts-Nevis, Elaine Samuels of the Education Ministry Montserrat and Iothe Wyre of Antigua for invaluable assistance in securing pertinent material and information. To Stella Warner for her patient assistance as typist and finally to my wife Olivia for her understanding and support.



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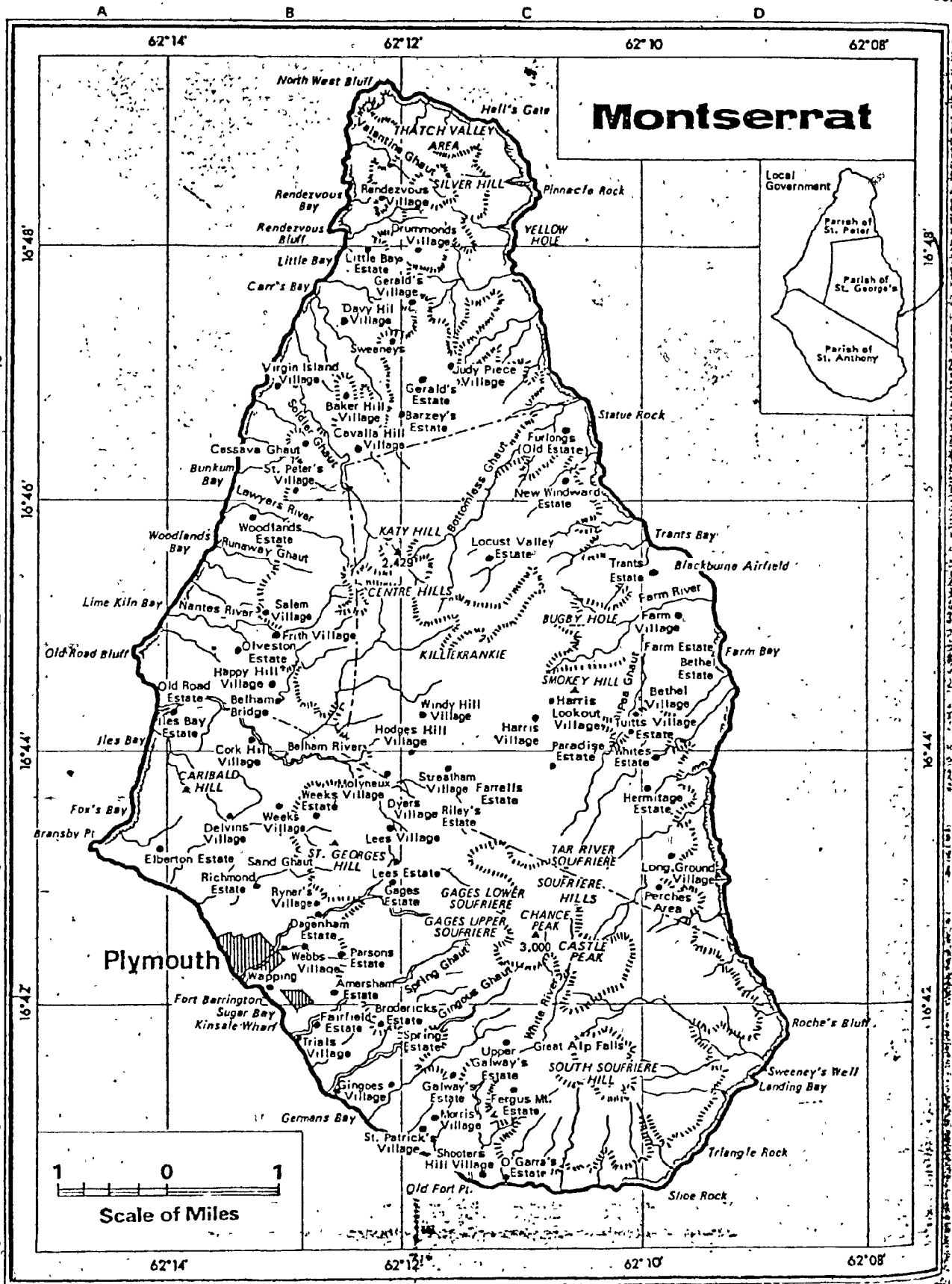
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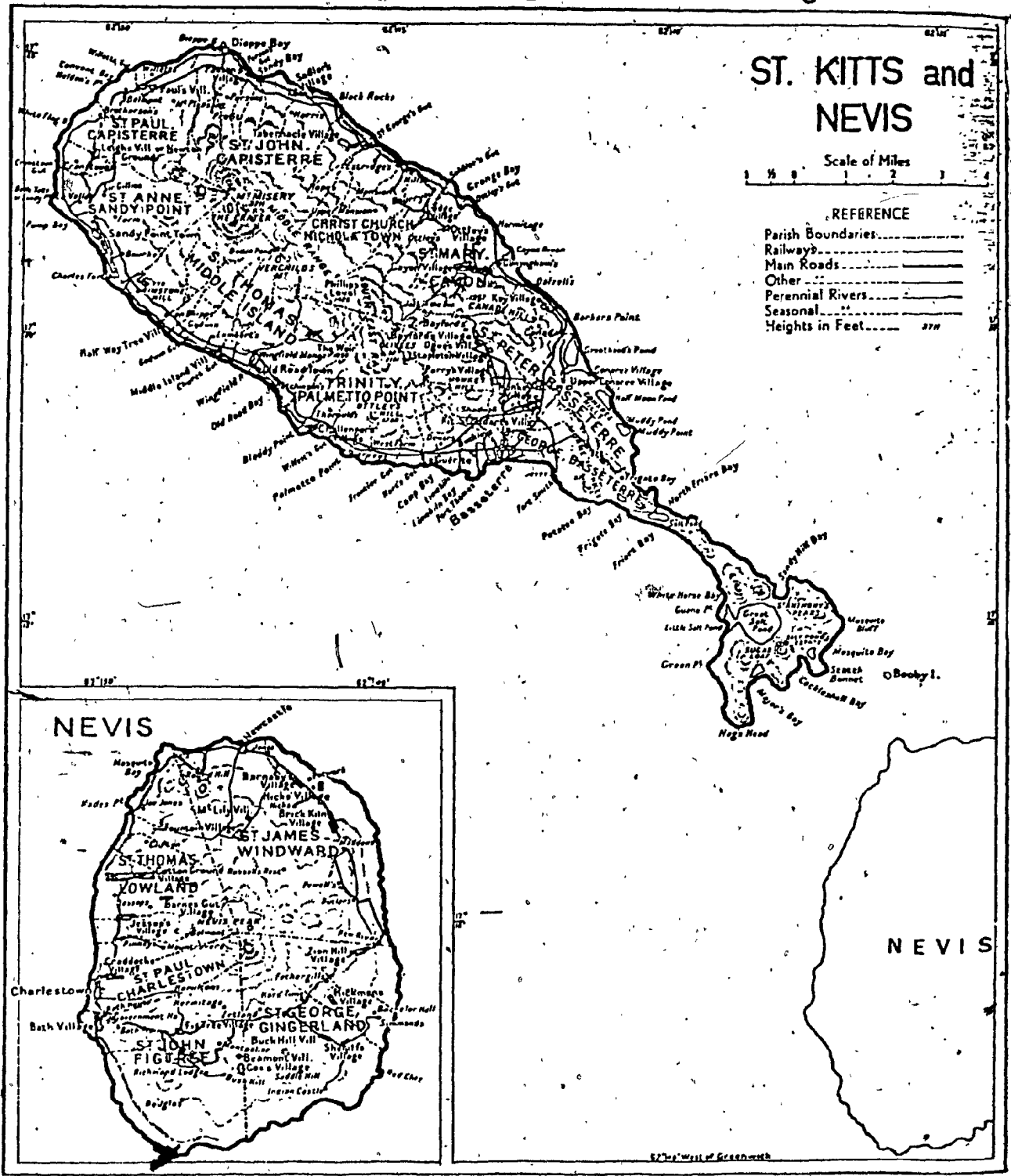
A B C

ST. KITTS and NEVIS

Scale of Miles
 1 2 3 4

REFERENCE

Parish Boundaries	-----
Railways	-----
Main Roads	-----
Other	-----
Perennial Rivers	-----
Seasonal	-----
Heights in Feet	370



NEVIS

NEVIS

BASIC BACKGROUND DATA

	<u>Antigua</u>	<u>Montserrat</u>	<u>St. Kitts-Nevis</u>	
Area	280 KM ²	102 KM ²	269 KM ²	
Population 1980	75,235 (Est.)	12,073	44,400	
Population Growth Rate	1.1 percent (1972/80)	-1 percent	-1 percent (1972/80)	
Currency (common)	East Caribbean Dollar: EC \$ - U.S. \$1.00 = EC \$ 2.70			
Gross National Product	EC \$ 196.7 m (1979)	EC \$41 million (1979)	EC \$ 69.5 m (1980)	
Gross National Product per capita	EC \$2,648	EC \$3,375	EC \$ 1,565	
Government Recurrent Expenditure	EC \$85.9 million (1981)	EC \$9.08 million (1979)	EC \$46.3 million (1981)	
Government Expenditure on Education	EC \$ 9.7 million (1981)	EC \$ 1.09 million (1979)	EC \$ 7.9 million (1981)	
As percentage of total Recurrent Expenditure	11 percent	12 percent	14 percent	
Unit cost by Sub-Sector Excluding Personnel Emoluments	1968	1979	St. Kitts (1978)	Nevis (1978)
1979 Primary	EC \$ 168	EC \$ 243	EC \$ 13.8	EC \$ 5.5
Actual Secondary Teacher Training)	EC \$ 458	EC \$ 630	EC \$ 11.4	EC \$ 12.3
Technical/Vocational)	EC \$ 242	EC \$ 1742	EC \$157.0 EC \$775.0	-

Source: Statistical Department, Planning Unit

Government of St. Kitts-Nevis December 1983

Government Statistics - Antigua 1983

Government Statistics - Montserrat 1983

Student Enrolment by Sub-Sector

<u>Enrolment:</u>	<u>Antigua</u> (1979/1978)	<u>Montserrat</u> (1979/1980)	<u>St. Kitts-Nevis</u> (1978/1979)	<u>Total</u>
<u>Primary:</u>				
Enrolment	12,213	1,924	6,509	2,159
Teachers	525	90	* 241	* 84
Pupil/Teacher Ratio	25	21	27	26
				8,668
				325
				27
<u>Secondary</u>	(1977/1978)	(1979/1980)		
Enrolment	4,937	828	3,823	1,139
Teachers	289	61	140	67
Pupil/Teacher Ratio	17	14	27	17
				4,962
				207
				24
<u>Post Secondary</u>	(1976/1977)	(1979/1980)		
Enrolment	253	59	97	
Teachers	18	7	9	
Pupil/Teacher Ratio	14	8	11	

Source: Education Departments, Antigua, Montserrat and St. Kitts-Nevis

* Government Schools only
St. Kitts-Nevis Combined
Teacher's College only.

LIST OF ABBREVIATIONS USED

'A' Level	Advanced Level of the General Certificate of Education
ACTI	Antigua Caribbean Training Institute
BDD	British Development Division
CARDI	Caribbean Agricultural Research and Development Institute
CARDATS	Caribbean Agricultural Rural Development Advisory and Training Services
CDB	Caribbean Development Bank
CEE	Common Entrance Examination
CMC	Central Marketing Corporation
CSE	Certificate of Secondary Education
CUSO	Canadian University Service Overseas
CXC	Caribbean Examination Council
FAO	Food and Agriculture Organization
GCE	General Certificate of Education
ILO	International Labour Organization
MCD	Ministry of Community Development
NACO	National Agricultural Corporation
'O' Level	Ordinary Level of the General Certificate of Education
UNESCO	United Nations Educational Scientific and Cultural Organization
UWI	University of The West Indies

PART 1

CHAPTER 1 - INTRODUCTION

INTRODUCTION:

The history of educational development in the English-speaking Caribbean is characterized by an over-powering colonial influence which permeates the entire education system of these islands. In these former British colonial dependencies, there is for example, an emphasis on formal schooling of the young in highly selective systems and a corresponding neglect of non-formal education of adults. Strong emphasis is placed on examinations, certification and the literary nature of instruction as opposed to the practical.

Although there has been strong criticism of the colonial inheritance from time to time, the education system has largely gone unchallenged and a lack of development of fundamental changes in the orientation of education as well as the perpetuation of a master/servant relationship still characterizes developed areas like Great Britain and developing regions like the emerging Caribbean nations.

In order to break this pattern of dependency it is necessary for the emerging Caribbean nations to re-examine their ideology in relation to education and strive to develop the type of philosophy which will provide Caribbean youth with relevant education and training to foster self-reliance.

Because the newly independent nations in the Caribbean share a similar history and a common heritage, their educational development or lack of it, is rooted in similar causes. For this reason, this study will look specifically at factors impacting upon

education for development in the Leeward Islands, a typical group among emerging nations in the Caribbean, over the two decades 1960 - 1980 with a view to making suggestions for possible solution of the most urgent problems, to produce endogenous development during the 1980's and beyond.

ORGANIZATION OF THE STUDY

The study is essentially a comparative analysis of education systems in the three territories which comprise the Leeward islands - namely Antigua and Barbuda, Montserrat and St. Kitts-Nevis. The availability of documented evidence dictates that the study be concentrated largely on the education system of St. Kitts-Nevis, using Montserrat and Antigua for comparative balance.

The study is divided into three parts with each part sub-divided into two chapters. Part I introduces the subject area and looks at the historic background and significance of the problem. The education systems which were developed in the Caribbean after emancipation were patterned after nineteenth century British models. Changes to the system over the years have been minimal. This section of the study tries to establish why the philosophy, methodology and content of education in the Leeward Islands over the last two decades are considered incompatible with the ideal of self-sufficiency.

Chapter 2 examines theoretical concepts relative to development and their relationship to education. Terms used throughout the study are defined. Conditions contributing to underdevelopment are examined and various theories of development are reviewed.

Part II reviews pertinent literature on education and development with a view to establishing a rationale for a new direction in education in the Leeward Islands. The focus is on previous research on the subject and the findings therefrom. In this general framework, political and economic factors related to educational change are examined.

Part III looks at recent trends in education in the Leeward Islands and their implications for development. Quantitative as well as qualitative aspects of education are examined. Programmes in technical education and vocational training are evaluated, trends in the area of Agricultural education and training are assessed, developments in the area of non-formal and continuing education which embrace adult education, education and training in the area of cooperatives and on the job training are looked at. It is in this area, the writer believes that much greater effort needs to be concentrated.

Aspects of educational planning for economic development are discussed and the importance of educational planning in the process of development is emphasized. Stages in educational planning are identified and the importance of the human resource element in development planning, that is, the vital need for education and

training, is further stressed. In this context, the study looks at evidence of planning for educational development in St. Kitts-Nevis and utilizes available material from Antigua/Barbuda and Montserrat for the purpose of comparison.

Chapter 6 summarizes the material presented and suggests alternative approaches which might be useful in educational planning for endogenous development of the Leeward Islands. These, however, are not intended to be regarded as fool-proof prescriptions for change since the writer recognizes that education is but one co-operant factor in the process of development. Its contribution to endogenous development is contingent upon all systems - economic, social and political working in unison to achieve the same objectives.

THE PHYSICAL SETTING

The islands of Antigua, Barbuda, Montserrat, St. Kitts and Nevis, form part of the Leeward Group of the Lesser Antilles in the Eastern Caribbean. Antigua has an area of 108 square miles and a population of 75,235 people mainly of African descent. Barbuda is 62 square miles in area and in comparison is grossly under-populated with an estimated population of about 2,000 people. Both islands achieved full independence from Britain (jointly) in November, 1981. Antigua's economy is heavily tourist-oriented. This makes it highly vulnerable to external factors, to economic trends in the developed countries and renders it susceptible to seasonal unemployment.

The 1973 Education Act provides for compulsory education of all Antiguan between the ages of 5 and 16. The Ministry of Education and Culture is directly responsible for education at all levels. The system is divided into Primary Education (Grades I - 7), Senior Primary and Lower Secondary (Forms I - III); Upper Secondary (Forms IV - V) and 'A' Level - (Forms VIB & VIA); Antigua State College which offers 2 year craft level courses in Building, Construction, Mechanical, and Electrical Engineering, Automotive trades and Secretarial studies.

Montserrat is an island colony of Britain, 39.6 square miles in area with a (1980) population of approximately 12,000. Montserrat lies mid-way between Antigua to the northeast (approximately 27 miles away) and Guadeloupe to the southeast. Montserrat appears to be contented with its Crown Colony status, although there is local speculation that its present government intends to seek a mandate from the electorate to pursue the goal of Independence from Britain in the next general elections.

Montserrat's education system reflects a strong British influence. Nine nursery schools cater to 3 to 5 year olds throughout the island. There are fifteen primary schools catering to the 5 to 12 age group. Eleven of these schools are government-run and provide free education. Two are government-subsidized Demoninational schools and two are privately run fee-paying schools. The primary schools are subdivided into Infant Schools for 5-7 year olds and Junior Schools for 7 to 12 year olds. Two government-run Junior Secondary Schools provide free secondary education to children between 12 and 15 years of age. A third one is in the planning stage. The

one Secondary School provides full secondary education and caters to children between 11 and 19 years of age. At this level all children follow a common curriculum for the first three years after which they pursue courses which prepare them to write the Ordinary and Advanced Level examinations set by Cambridge University or the Caribbean Examination Council's General or Basic Proficiency Examination. Free vocational education is provided at the Technical College in Commerce and Business subjects - typing, short-hand and office practice; Construction Technology - carpentry, masonry and plumbing; and Engineering - electrical and mechanical. Adult Education classes are offered by the Extra-Mural Department of the University of the West Indies and Teacher Training is conducted locally by the Education Ministry or at regional training institutions in Barbados, Jamaica, Trinidad and Guyana.

St. Kitts and Nevis are located in the northern-most portion of the Leewards group. St. Kitts is 65 square miles in area and has a (1980) population of approximately 35,100. Nevis, lying two miles to the south-east of St. Kitts at the closest point, has an area of 36 square miles and a (1980) population of 9,300. The two islands achieved nationhood jointly on 19th September, 1983. Being of volcanic origin, both islands are well-suited to agricultural production. Sugar has been the back-bone of the St. Kitts economy while Nevis has traditionally been the bread-basket of the nation, producing most of the food crops as well as sea-island cotton for the export market.

The Ministry of Education is solely responsible for education at all levels. There are thirty-four government, fourteen private and six denominational schools in St. Kitts-

Nevis. The 1975 Education Act provides for compulsory education for all children between the ages of 5 and 16. The system is structured as follows: Early childhood Education (2 years) catering to 3 and 4 year olds; Primary Education (7 years) 5-12 year olds; Post-Primary Education sub-divided into All-Age Schools (4 years) catering to 13-16 year olds; Junior Secondary (4 years) geared to 13-16 year olds and Secondary (5 years) 13-17 year olds. Post secondary Education consists of Sixth Form College (2 years) 18-19 year olds. Teachers' College (2 years) 18-19 year olds and Technical College (2-3 years) 18-20 year olds.

With the exception of Montserrat, the islands have severed the political links by means of which Britain exerted direct influence and control over their destinies. However, some aspects of domination are still evident, in the two independent territories. This is particularly obvious in the perpetuation of colonialist policies and practices in all levels of the educational systems of these countries. The structure and organization of the schools reflect a foreign model and remain rooted in the administrative framework of the (former) colonial rulers. This necessarily has some impact upon the nature of the education provided.

Historical Framework of the Problem

As far as the history of education in the modern Commonwealth Caribbean is concerned, the earliest period of any significance is the period immediately following the emancipation in 1834¹. Up until that time there was no question of an education system as such. The majority of the islands' population were slaves who were not encouraged to learn more than the basic rudiments of the English language.

The vast majority of institutions created under colonialism were geared to keeping colonized people docile, unquestioning and fiercely loyal to their masters who they depended upon to make every major decision which affected their existence. Local institutions which appeared to be opposed to European civilization in any way were either discouraged or suppressed.

In preparation for the Act of Emancipation, the British Government passed legislation in June 1833 to provide funds for the religious and moral education of the negro population after emancipation², but while the British Parliament haggled about who should administer the negro Education Grant, religious groups seized the opportunity to indoctrinate the local population in religion and elementary education. After two years of indecision, the British government had the choice of either subsidising the religious bodies so that they could continue their work, or administering the grant through the local legislatures in the islands, so that they could start anew with their own programs of education.

Gordon (1968) points out that both alternatives were potentially problematic for the British Parliament. On the one hand, the legislatures which had an interest in sugar were not unduly interested in educating ex-slave children whom they needed on the plantations as low-paid labourers. On the other hand, the religious bodies had very little resources to guarantee the provision of adequate education on an ongoing basis. Eventually, the British Government in 1835 approved payments to the religious bodies to subsidize education in the British Caribbean.³

A study by Rev. John Sterling on the state of education in the British Caribbean in 1835 found that the education undertaken by the missionaries and other religious groups suffered from the same inadequacies as the English schools of the same period. Classes were large and were conducted in poorly ventilated buildings which in many cases were badly in need of repair. Because the teachers were untrained, inappropriate methods of rote learning were applied and in general there was little effort made in the education process to instill feelings of self-respect or pride in the young ex-slaves.⁴

Funding of religious schools continued for ten years from 1835-1845, after which time the British Government, no doubt feeling that its conscience had been assuaged, considered it was time that the people of the Caribbean paid for their own education systems. In the meantime, however, the religious bodies had laid the foundations of elementary education in the colonies and upon the advice of the British Government, the local legislatures had enacted laws to make education compulsory and to supplement education through local taxation.⁵

It is important to note, however, that at this crucial stage in the development of education systems for the islands, no attempt was made to provide the local population with the basic elements to fully comprehend the nature of their existence neither was any effort made to instill values of pride or self-worth in the youthful population. The truth is that with the possible exception of the Quakers, the other organized religious groups rarely challenged in an official capacity, the degrading status of the negro slaves in the Caribbean. There is no evidence of any consistent

head-on onslaught upon the institution of slavery by any of the organized religious bodies. In fact, according to Lewis (1968) The British Society for the Propagation of the Gospel had its own slaves in the West Indies, even though they were under trust. Lewis points out further, that it was the (French) deist Assembly of the French Revolution that first abolished slavery in 1791⁶. This was forty-three years before Britain passed its Act of Emancipation through which Caribbean slaves achieved their freedom. The religious bodies that undertook the task of educating the ex-slaves therefore felt no strong commitment to healing the psychological wounds inflicted by two hundred years of enforced servitude. Yet those very circumstances are in large measure still the key to understanding contemporary society in the Caribbean.

After being forcibly uprooted from his African habitat, the negro slave was first detribalized then de-culturized and forced to adjust to a completely alien life-style. His descendants were forced to live with the stigma of displacement and rootlessness. They inherited unhealthy characteristics like suspicion and distrust of their fellowmen; bitterness and frustration were dominant elements of their existence. They identified manual labour with social degradation to the detriment of the region's agricultural industries, and the field-slave's only defence mechanism in the plantation system - the "go-slow" tactic still characterizes to some extent, the attitude of some Caribbean people towards work.

The period immediately following emancipation was for all practical purposes a period of crisis which depended largely on education to remedy it⁷. The religious educators had the choice of (a) mobilizing the inherent moral and intellectual forces

of the ex-slaves by providing them with an education which would emphasize their personal worth and equip them to be useful and innovative citizens or (b) allowing them to retain the attitudes acquired during slavery, characterized by distrust, deceitfulness, indolence and ignorance⁸. Consciously or otherwise, most religious groups tended to contribute to the latter rather than to the former objective.

The emphasis in religious education was on rote learning of passages from the Bible without any real comprehension of the written word. This mechanical method of teaching and reading without comprehension does not constitute education. This should be regarded as religious indoctrination.

One of the shortcomings of the Act which established the Negro Education Grant, was its failure to set up even the most rudimentary standards for academic education which the religious bodies could use as guidelines. This gave them carte blanche to use the monies provided for the education of the ex-slaves to promulgate their religious doctrine without too much concern for the academic orientation of their teaching. However, the contribution of the early missionary education must not be underestimated. It established a basis upon which later educators could build. A number of financial drawbacks which developed early in the 20th century led governments in most of the Caribbean territories to take over the running of the schools. However, they continued to use the church buildings as class rooms⁹.

Elementary education patterned largely off of the British system became the sole domain of the local governments. The churches took no further part in the running of

the schools. Early British elementary education, geared to children of working class people was directed at children between the ages of 5 to 16 years. Children of middle and upper class families attended the High or Grammar Schools and there was little interaction between the two groups. The 1944 British Education Act extended secondary education to all children at age 12 regardless of class background, and the schools catering to the 5-12 year olds became Primary Schools. The Primary Schools prepared children for the "Eleven Plus Examination" on the basis of which children were allowed to transfer to the Grammar Schools. After 1944, like most other systems, the Education Systems in the Leeward Islands were patterned generally after those of Britain. Children in the elementary schools were graded according to age rather than ability. They were drilled relentlessly in order to satisfy the requirements of the Grammar School Entrance Examination and those children who did not "pass" remained in the elementary schools until age 16 when they wrote the Seventh Standard examination. (This was later replaced by a "School Leaving" exam).

A two-tier system embracing (a) free elementary education from age 5 to age 16 and (b) fee-paying secondary education at the islands' High Schools, was in operation in St. Kitts-Nevis until the early 1960's after which changes were introduced to make the system more all-encompassing.

Education from the 1960's Onwards

During the decade of the 1960's, as more children gained access to the Grammar School in St-Kitts-Nevis, Senior Schools and Junior High Schools were set up, text

books were introduced and with the help of British and Canadian educational experts who were brought in and assigned to schools in the area 'In-Service' training in new teaching methods as well as revisions to the curriculum were introduced. It was during this period, that comprehensive secondary schools were introduced into the British school system and copied by the Leewards and other Caribbean territories. Secondary education was made free and the entrance examination as a criteria for admission was abolished.

The first free secondary schools were introduced in St. Kitts-Nevis in 1961 and all pupils between 12 and 16 years from the elementary schools were provided with free secondary education regardless of their ability or orientation. This had serious implications which were not officially recognized. Up until then, secondary education had been the exclusive domain of children of the privileged classes, who could afford to pay. On leaving school, they generally found employment in government offices, banks or other business places. The nature of the education they received did not equip them to any great extent to venture into businesses of their own. The limited employment opportunities in the islands, absorbed some of these graduates annually while others sought employment in more lucrative pastures abroad. A few went on to pursue further studies. Enrolment prior to the free secondary era was restricted, hence the number of graduates entering the labour force annually from each secondary school, amounted to no more than a few dozen. With the introduction of free secondary education, children's expectations were raised and visions of white collar jobs in the Civil Service prevailed. However, because there have been no consistent efforts to upgrade the curriculum, the education provided continues to be largely literary and academic and the criteria for

entrance into the Civil Service is still deeply rooted in 'O' level and 'A' level passes in externally set examinations.

What this means, is that as the number of school-leavers increase each year, there is more pressure placed on government to absorb them into the work force, since employment in the private sector is limited. But the supply of graduates continues to be greater than the demand for their services. This has contributed to the growing ranks of 'educated' un-employed youth - a situation which has socially explosive implications. The irony of this situation lies in the inability of these 'educated' youths to use their education to earn a living, since the education is geared to white-collar employment. It does not provide them with the tools to venture out into the business world as small entrepreneurs even if they could find the capital to start small businesses.

A part of the cause of this problem may be attributed to the curriculum which is still patterned to a great extent off that of Britain. The curriculum concentrates mainly on subjects like English, Spanish and French languages, Mathematics and the Sciences, History and Geography. Practical courses like Agriculture, Accounts, Commerce, Woodwork and Metalwork are offered in some schools; but the prevailing emphasis remains on 'academic' subjects. This emphasis must be shifted to practical, work-related courses in order to prepare the youths for the work-place and reduce the dependence upon white collar employment; which, limited as it is in economies such as the Leeward Islands, can retard the process of economic growth and development.

Chapter 1 - Introduction

Notes and References:

1. See Shirley C. Gordon Reports and Repercussions in West Indian Education 1835-1933.
2. Ibid p. 11.
3. Ibid p. 11.
4. Ibid p. 12
5. Ibid p. 12.
6. See Gordon K. Lewis: The Growth of the modern West Indies, McGibbon & Kee Ltd. 1968. P 61.
7. Shirley Gordon Reports and Repercussions in West Indian Education 1835-1933. op cit. p. 18.
8. Ibid p. 18.
9. Ibid p. 19

CHAPTER 2 - THEORETICAL FRAMEWORK OF THE PROBLEM

Basic Concepts and Definitions

It is well nigh impossible to formulate a theoretical approach to development which incorporates all the 'important' aspects of development, because there are so many. Furthermore, some of the factors considered important by analysts are difficult to quantify and hold up to analysis. I shall therefore attempt, in this section of the study, to identify some of the basic concepts central to development with a view to finding out how education might facilitate the process, and define some of the terms which I shall use throughout the study. The discussion shall focus upon aspects of development which have universal implications and which are relevant to the study.

Development

The meaning of the term 'development' varies depending on who uses it and for what specific purpose. For example, development in some countries means industrialization; in others it is equated with infra-structure expansion and in others it might symbolize the achievement of political independence, expansion in educational institutions or the expansion of communications network. To sociologists and political scientists development is generally regarded as a process of modernization during which social and political institutions flourish. Economists tend to equate it with economic growth and they are primarily concerned with accumulation of savings, investment, productivity, national income, balance of trade and other economic indices. However, regardless of orientation, the term development conjures up images of positive societal change.

Adam Smith, one of the more influential classical economists saw rapid increase in the specialization of labour as the 'key' to development. Such specialization, he contends, could not proceed without adequate capital to provide equipment with which to work and other 'necessities of life' which workers demand. Smith's theory was founded on the assumption that men had an innate propensity to barter and trade, and once the external obstacles to specialization and free trade were removed they would engage freely in the trading process¹.

Don Adams and Robert M. Bjork (1969) equate the idea of 'development' with the older concepts of 'progress' or 'advancement' which entail social change during which the wealth and income of the society show marked improvement.² On the other hand, Adam Curle (1970) suggests that equality and social justice are essential elements of development; he sees development as the means by which a society achieves the following basic qualities:

Security: A social order in which there is a low level of violence and where the individual is safeguarded from abuse.

Sufficiency: An acceptable standard of material provision.

Satisfaction: A satisfying and enjoyable life style and stimulus - individual opportunity for growth and change.³ A.R. Thompson (1981) points out, however, that these things cannot be achieved without economic growth. He sees development as the accumulation and distribution of wealth, the use made of this wealth and the impact of its creation as well as its use on the quality of life in a particular society.⁴

The idea that education and learning are indispensable catalysts to development have been advanced by several social scientists and this idea has been reinforced by much of the development theories being touted in contemporary literature. For example, D.E. Bell, Chairman of the External Advisory Panel on Education to the World Bank (1978) had this to say:

At bottom, what is meant by 'development' is a process of enabling people to accomplish things that they could not do before - that is, to learn and apply information, attitudes, values and skills previously unavailable to them. Learning is not usually enough by itself. Most aspects of development require capital investment and technical processes. But capital and technology are inert without human knowledge and effort. In this sense human learning is central to development.⁵

Because 'development' has a wide range of interpretations and because education systems are not always easily understood, the precise contribution of education to the development process remains somewhat obscure. Consequently, no concise theory has yet been advanced which provides for the integration of education and social development or education and economic development. Each factor is treated in isolation and because they are not mutually exclusive, development theory remains unclear. Education is but one contributing factor to the overall process. As such, its impact is conditioned by intervening variables of an economic, political and social nature. Too often, however, education is assumed to be the the principal contributing factor to the process of development. This assumption is erroneous.⁶

It is of fundamental importance that educators, economic and social planners have clear and concise notions of the nature of the tasks in which they become involved. For any discussion of development and development-related problems to be even remotely effective, one must first clarify exactly what is meant by development.

Curle suggests that one common approach is to associate development with economic phenomena, so that aggregates of economic growth like Gross Domestic Product, National Income and Gross National Product are often confused with development⁷. By themselves, increases in economic aggregates do not necessarily mean increases in real per capita income and increases in per capita incomes do not take into account the distribution of such income. Nevertheless, it has become convenient to equate increases in economic growth with economic development when in actuality we mean changes in productivity or changes in the structure of the economy. The idea of equating economic growth with development is questionable largely because many of the assumptions about the nature of the growth process have no basis in observed fact. The assumption in traditional models of development that increases in output is automatically followed by increase in employment is a case in point, since observable evidence from a number of developing countries point to an increase in unemployment and greater income inequalities following a rise in GNP⁸.

Endogenous Development

Theories and strategies for economic growth in under-developed countries have been traditionally based on the experiences of developed countries in Europe and North

America. It was generally assumed that policies which produced economic growth and an improved standard of living in these countries, would do the same for the under-developed areas of the world - an erroneous assumption as noted above (See note 8).

Based on this ill-founded assumption, development for Third World countries has been seen as being dependent, to a large extent, on inflows of capital, plant, machinery, and trained human resources into developing countries from the already developed world. Imported technology is generally considered better than that which is locally produced. Technicians and specialists trained abroad to suit conditions which differ vastly from conditions in Third World countries are generally considered superior to indigenous workers who are more familiar with peculiarities of local conditions.

It is gradually being realised, however, that development strategies and technologies suited to developed areas, are not necessarily appropriate for underdeveloped countries. This has given rise to an increasing trend in developing countries to shun those development models which were designed for the already developed countries and to look instead to their own internal resources to generate the type of development best suited to local conditions and local needs. It is this type of internally generated (endogenous) development, that this study addresses.

In the context of the emerging Caribbean, the concept of development has to be looked at in totality. It must be geared to, though not confined exclusively to the reduction and eventual elimination of unemployment, the eradication of factors which contribute to inequalities in income distribution and distribution of the wealth

of the region; it must unleash the creative and productive talents of the people of the region and mobilize them for self-sustaining growth. Development in a Caribbean context means as well harnessing the potential of our greatest resource - our people and motivating them in the direction of social reorganization by instilling in them the correct values towards work, and educating them to combat alienation and dependency. Education and training are generally regarded as key factors through which the foregoing may be accomplished:

Development Education

Development education is concerned primarily with the need to help people in developing countries understand and achieve economic, political and social advancement. In the context of post World-War II expansion in education, the term is usually used to refer specifically to the development of those regions which have successively been considered as underdeveloped, developing, less developed or low income countries.

For the purposes of this study, the term 'development education' refers specifically to education aimed at the improvement of know-how and technology to better provide for the cultural needs, material well-being and improvement of the social, economic and political institutions to satisfy the needs of the majority in these societies. Any educational knowledge specifically related to this purpose in those countries categorized as 'underdeveloped' etc., is essentially development education.

This is not to be confused with education in a general sense or with comparative education. The fundamental difference is one of purpose. G.W. Parkyn (1977) suggests, for example, that the specific purpose of comparative education is to increase understanding of the relationship between education and the development of human society by taking into account factors that cannot be adequately observed and understood within the limits of any particular society, culture, or system, applied to societies and systems⁹. So whereas comparative education is all encompassing in its scope and purpose, development education is restricted to a particular socio-cultural clientele.

Education System

The 'Education System' or 'the School System' refers generally to the regular educational institutions of a country, from kindergarten through university where the formal process of teaching and learning takes place. The process generally involves teachers, students and administrators with some support from parents. The organization and structure of the system define various stages in the educational process, that is what happens at each stage, what system of evaluation is used and how students progress from one stage or level to another. 'Learning' is generally taken to mean any change in behaviour, knowledge, understanding, skills or capabilities which the learner retains and which cannot be ascribed simply to physical growth or to the development of inherited behaviour patterns.¹⁰

Because the Education System is an integral part of the social structure of a country, it tends generally to reinforce what exists and to socialise its products towards maintenance of the system. In this context, A.R. Thompson (1981) holds that schools have the tendency to reinforce existing social systems because they function as instruments for the allocation of rewards, and not necessarily because what they teach is designed to maintain the system.¹¹

It is important therefore to define in precise terms the type of society we wish to create, if education is to be used to bring about that kind of society. In the context of the emerging Caribbean, William Demas in Change and Renewal in the Caribbean has this to say:

In order to bring about meaningful change in the Caribbean we need an explicit ideology that is relevant to our history, our present situation of psychological and economic dependence on the outside world, and our hopes and aspirations.Indeed no under-developed country can hope to achieve a soundly - based and nationally controlled economy and a national identity unless there is some kind of coherent and clear-cut ideology underlying such efforts.¹²

The implication here is that education systems in the emerging Caribbean should reflect the explicit ideology of the region once this has been established. It is conceivable, however, that education systems will not always bring about the desired effects for a wide variety of reasons. Nevertheless, this does not negate the feasibility of gearing education systems to specific national development needs.

Equality and Social Justice

Adam Curle suggests that two underlying principles in the process of development which most societies strive to achieve are equality of its people and social justice.¹³

Equality does not infer that everyone in the society is the same, but that everyone has access to the same opportunities. Basic rights and obligations are similar for all groups in the society so that no one individual or group feels more or less worthy than the others.

The principle of Social Justice ensures that every individual is fairly rewarded for his service in such a way that inequalities of wealth and status are minimized. It protects all members of the society from exploitation and victimization. Curle suggests that any society which consciously espouses the principles of social justice and equality will 'inevitably be democratic in constitution'. He concedes however, that in many countries having ostensibly democratic constitutions, there is little equality or social justice.¹⁴

In the emerging Caribbean, the principle of Social Justice ostensibly forms the basis of much of the education policy in the region. But while ideological rationales look good on paper and some clichés sound good when voiced, it is the actual values which are transmitted and received through the education system as well as religious and other institutions which in the final analysis are going to determine the kind of society our systems produce.

Tanzania's Ujamaa policy advocated by Julius Nyerere is one example of a social justice policy which appears to produce positive results. Nyerere's aim is to provide an education which integrates the learning process with total life experiences.

(Note: the Ujamaa policy is discussed in more detail in Part II, Chapter 3).

Economists in western countries have made a general practice of classifying as "economically backward" or "underdeveloped" countries in which particular socio-economic conditions abound. Economic (quantitative) indices are generally used as the basis of classification. These quantitative indices and criteria tend to cover up qualitative differences between these countries.

A number of factors combine to inhibit the economic progress of underdeveloped countries; however, the literature suggests that some of these factors are a consequence rather than a cause of under-development. These factors according to some analysts already mentioned, inter-relate in intricate ways to perpetuate a 'vicious cycle' of dependency. No specific theory has evolved to adequately explain the concept of underdevelopment or to solve the problems of slow economic growth which under-development fosters. This study offers no cut and dried explanations of the causes of Caribbean under-development since the numerous intervening variables which give rise to the phenomenon are not clearly understood. However, alternative approaches which might be remedial are suggested in Part III of the study.

Conditions of Underdevelopment

The use of statistical indices as measures of under-development is pretty general and while comparisons based on such indices are valid and important, the use of statistical indicators alone to identify and categorize a complex socio-economic phenomenon like under-development, tends to produce superficial and misleading results which do not reveal the true causes of the phenomenon. Hence, from a theoretical point of view, such a basis for determining the state of a country's development is unreliable and theories based solely on this criterion are even more dubious.

Statistical Indices Basis

The Gross National Income per capita, for example, establishes a given situation within the economy at a particular time. What it does not indicate are differences in levels of income, how this income is produced, distributed or utilized by a given population. Yet, these are the very factors which determine the possibilities and limitations to development.

H. Myint (1964) points out that because of imperfections in base statistics in calculating both the total national income and the total population, per capita income figures for many under-developed countries are still very crude and liable to wide margins of error. Low income per capita is but one aspect of the complex problem of underdevelopment and a definition of the underdeveloped countries relying solely on the per capita income criterion is bound to be arbitrary.¹⁵

Myint takes the argument further by suggesting that if an arbitrary per capita income figure of \$100 is used as the basis of definition, many countries with per capita incomes of up to \$400 will be excluded even though they may otherwise be regarded as under-developed. If on the other hand, the demarcation line is raised to \$400, some countries will be excluded which inspite of having relatively low per capita incomes are considered 'developed' in other respects. Japan is a good example of the latter situation.¹⁶

The purely statistical basis of classification has to some extent been down played in recent literature on the subject, preference being given instead to demographic variables, and countries exhibiting a pattern of unfavourable demographic characteristics are generally classified as under-developed.

Unfavourable Demographic Conditions

Social scientists have identified a number of consistent features which characterize countries considered to be underdeveloped. These features to a considerable extent form the basis upon which the vast majority of developing countries are thus classified.

Adams and Bjork (1969) identify a list of twenty-two often-mentioned features of under-developed countries. Among these are the following:¹⁷

1. High birth and death rates (but often with death rates declining and a consequent 2 to 3 percent growth in the population).
2. Poor sanitary and health practices (great lack of health services).
3. Poor housing.
4. High percentage of population in agriculture.
5. Low per capita income (and high percentage amount of this income for food).
6. High illiteracy and very low enrolment in schools (particularly secondary and higher schools).
7. Low status for women.
8. Poor technology (communication and transport systems limited).
9. Export of raw materials in any foreign trade arrangements.
10. Low savings and low net investment.
11. Poor yield on the land and much soil depletion.
12. Poor credit facilities and high interest rates.

In addition to these characteristics of under-development cited by Adams and Bjork, the French demographer A. Sauvy, attributes under-development as well to insufficient development of the middle classes, authoritarian political regimes, and lack of democratic institutions.¹⁸

Some of these features may apply to countries generally considered 'developed'. At the same time, some of the areas considered 'under-developed' may not be ideally characterized by some of the features listed. Generally, however, if a country possesses several of the features which are considered to be typical of undeveloped societies, then it is fair to consider that country as under-developed.

Ragnar Nurske (1953) suggests that many of these conditions of under-development have self-perpetuating characteristics which help maintain a vicious circle of poverty.¹⁹ Nurske identifies low capital formation and low domestic savings as causes for low productivity. Low productivity limits the size of the domestic market and the limited size of the domestic market in turn limits productivity. In non-economic terms Nurke's theory suggests that people in developing countries are technologically ignorant and therefore they are poor; because they are poor they lack the capital to invest, because they do not invest they produce little and therefore become poorer.²⁰

Nurske's theory centers around economic variables such as shortage of capital, lack of markets and lack of investment possibilities. He suggests that as these economic problems are solved, favourable economic conditions would trigger an upward spiral and development of the society would take place. Nurske's bias in the direction of economic variables however, tends to weaken his argument since several non-economic factors which combine to keep a country under-developed, are virtually ignored. He fails for example to take into account, the role of human resources in the development/underdevelopment matrix.

Classification on Human Resources Basis

Adam Curle (1970) defines the concept of under-development in terms of a country's failure to make adequate use of its human resources.²¹ Among the characteristics contributing to under-development which Curle identifies are the following: (a)

exploitation by a minority, (b) internal conflict, (c) suspicion of outside influences (d) a harsh environment. These factors, he suggests, are the result of poor training and lack of education - ingredients necessary for understanding the social and economic activities of development.²² Conditions of poverty and under-development can be overcome, Curle suggests, by giving people the opportunity to exercise their 'creativity' and 'ingenuity' since people who are under-utilized only tend to remain bound by tradition and dis-interested in the national life of the country.²³

In another vein, Thomas Malthus (1830) held that permanent and uninterrupted development of a society was impossible, given men's proclivity to procreate at such a rate as to create 'insurmountable obstacles to continued development'.²⁴ It must be borne in mind, that Malthus was writing in an age of excessively high birth rates (and death rates) when birth control mechanisms and practices were still relatively primitive. Malthus' pessimism about population increase and its relationship to development might have appeared at the time to be unfounded, but the continued high birth rates and population expansion in developing countries, suggests that Malthus' theory might be more credible than originally perceived.

Absence or Mis-use of Natural Resources

Jacob Viner suggests that a low level of productivity acts as a hindrance to development. He ascribes it partly to unfavourable natural endowments like poor soil quality, jungles, lack of mineral resources and water power, unfavourable climatic conditions, transport difficulties and the poor quality of the working people.²⁵ Doubtless the poor quality of the working population in some developing

countries is one of the causes of low productivity and consequently a hindering factor to development, but whether this is the cause of under-development or the consequence of under-development is debatable.

Lack of Capital Basis

A shortage of capital is considered to be one of the most characteristic features of economic underdevelopment. Low productivity level, unemployment, underutilization of human and natural resources are often directly related to this factor.

It can be safely argued, that the fundamental causes and methods of treatment of economic under-development is closely related to the lack of capital in underdeveloped countries. This basic lack of capital in the developing countries gave birth to a particular school of thought on development which links the lack of capital in developing countries to these countries' dependence on the already developed areas.

According to Arne Bigsten (1983) this dependency paradigm was an outgrowth of earlier marxist theories and he summarizes what he means by 'dependency theory' as follows:²⁶

- (a) Third world under-development is the result of the same processes that created development in the industrialized countries.
- (b) The prime mover of the system is capital seeking profits. The global pattern of investment determines the pa growth.

- (c) Capitalists accumulated capital where profits were highest. This led to the extraction of surplus from the Third World, which perpetuated the low levels of productivity and the structure of dependence. The economics of Third World countries remained externally oriented.
- (d) Local initiatives were blocked and no autonomous development path could be followed due to smallness of the market, for example.
- (e) Classes emerged in the periphery with interests common to those of the bourgeoisie of the centre.
- (f) The concept of under-development refers to this self-perpetuating process, its structure and result.

One of the critics of the 'dependency theory', is S. Lall (1975) whose main point is that the dependency theorists emphasize traits which tend to be characteristic of capitalist development in general and hence, cannot be considered to be characteristics of the special process of capitalistic under-development. He argues further, that it has not been possible to find a causal link between these characteristics and underdevelopment.²⁷

Leys (1977) suggests that in order to avoid fundamental difficulties in any discussion of the concept of dependence, it is necessary for one to remain on a high level of abstraction. He points out the following problems associated with any discussion of dependence and development:²⁸

- (a) The concept of development is unclear
- (b) Concrete typologies are seldom presented
- (c) The theory incorporates only economic variables and is static. Under-development is considered to be inevitable.
- (d) It has not been possible to explain precisely what causes under-development.

Leys contends that 'under-development' and 'dependency' theory is no longer serviceable, since fundamental problems exist which this theory cannot solve. He advises that caution must be exercised in generalizing about development/under-development theory.²⁹

Early development theory tended to look to economic indicators and statistical indices for evidence of the state of a country's development. Modern theories of development, however, tend to place greater emphasis on the level of development of human resources. Under-development is not a phenomenon which can be easily explained away, since several factors combine to keep a country under-developed. Admittedly, no development can take place without capital resources and a healthy business outlook, but without skilled human resources to manipulate capital much of it can be wasted and the result can easily be stagnation rather than economic development. The importance of the human resource element in the development/under-development matrix cannot, therefore, be overlooked.

Development Concepts and Theories

Theories of Development

Many economists and social theorists have tried to analyze the process of development and as a result several interesting theories have evolved. Out of these a general picture has developed which equates development with ideas of economic growth, expansion in standards of living, and improvement in the social political and economic systems of a country.

There is still considerable mystery as to exactly how the process of development comes about, since no one factor by itself can be credited with producing any dramatic changes in the overall structure of a society. The growth process of an economy is multi-dimensional and it cannot be explained in terms of a model which lays stress only on the different aspects of investment planning. Indeed, several non-economic factors are involved in the process and these include variables like decreasing birthrate, improvement in health and sanitation, increase in literacy rate and school enrolment. Thus development may be regarded as positive societal change taking place over time which involves all of a society's resources, human as well as physical.

Rostow Versus Marxian Concepts

W.W. Rostow theorized that development is an evolutionary process which takes place in stages, the length of each stage varying from country to country. He

identifies five (5) stages in the process of development namely (a) the traditional society (b) the pre-industrial stage (c) the "take-off" stage (d) the mature and (e) the high mass-consumption stage. During these stages, a society becomes modernized.³⁰

Other factors necessary for expansion to take place are technological advancement, ready markets, a new manufacturing sector and the emergence of a new elite group.

Rostow suggests that the development process takes a long time, but once the idea of "progress" is interpreted to mean a better life, the process is set in motion whereby a modern alternative to the traditional society is constructed out of the old culture.³¹

Rostow's five stages are as follows:

- (a) Traditional society: This is characterized by a basic lack of understanding of the physical environment which hinders the development of technology and productivity. A large percentage of the population (approx. 75%) is engaged in agriculture; a high percentage of income is spent on non-productive or low-productivity ventures. Society is hierarchically structured and political power is vested in a small authoritative group.
- (b) In the pre-industrial or transitional stage, radical changes in the non-industrial sector take place. Expansion of imports takes place, transportation and communications are expanded and a new 'development-oriented' mentality takes over. Technological improvements in industry and agriculture take place and these along with social and institutional reforms pave the way for the 'take-off' stage of development.

- (c) The 'take-off' stage is characterized by an increase in the rate of productive investment, the development of a manufacturing sector and the emergence of new political and social institutions which serve to boost expansion in the modern sector. During this stage, many of the traditional barriers to progress are removed. Expansion in education, mobilization of capital for investment and exploitation of previously untapped resources all serve to prepare the society for the drive to maturity.³²
- (d) Rostow's stage of maturity sees the spread of growth from the main sectors of the economy to other sub-sectors; technological expansion is evident, the proportion of the population engaged in agriculture decreases and the quality of the work force improves. The character of industrial leadership changes and professional managers assume greater prominence.
- (e) During the subsequent high mass consumption stage of development, Rostow suggests that the society is fully equipped to set up new industries for the production of the consumer goods and services which are demanded. The society is technically and technologically mature. There is increased private consumption of durable consumer goods and services.

This general pattern of development was followed by western industrialized countries as well as by Japan. However, as Rostow warns, the stages in the growth pattern may not always be clear-cut, as characteristics of one stage may co-exist with those of another. Rostow's theory is similar to that of Karl Marx in several respects but there are areas in which their basic premises differ.

Karl Marx sees a country's development as going through four stages, namely:³⁴

(a) feudalism, (b) commercial capitalism and monopolistic industrial capitalism (c) socialism and finally (d) communism.

Marxist theory hinges on the shift in control of the means of production from one exploiting class to another. Thus, the traditional feudal class is replaced by a new class of capitalists. The capitalist stage is characterized by a dominant class controlling the factors of production in society, and extracting the profits which are re-injected into the society. The continuous injection of capital reduces the labour component of production causing surplus value and profits to fall. The development process according to Marxian philosophy, inevitably degenerates into economic depression and mass misery through exploitation of the workers by the capitalists. This situation can only be relieved by a stage of socialism, following the spontaneous overthrow of the oppressors by the masses. The next evolutionary stage is a classless society.

Marxian philosophy has influenced to a considerable extent, development policy in some developing countries with more militant leadership. However, some of Marx's theories have been challenged by other economists and social scientists, among them Walt W. Rostow.

According to Adams and Bjork (1969), Rostow does not believe, for example, that the process of development must inevitably generate crisis and misery. He argues on the

contrary, that in the final stages of development, high mass consumption assures the masses a comfortable material existence.³⁵

Rostow argues that the key to development lies in the following: (a) a set of social circumstances which allows a continual large net investment accompanied by "approximate rationality on the part of investors and managers; (b) expansion of technology and (c) a sizable and varied market³⁶. Both Marx and Rostow see capital expansion as a key ingredient in development, but whereas Marx sees this expansion as the result of class conflict, Rostow regards it as the result of an emerging elite class applying technology to nature in a relatively rational way. They both see development as being a primarily economic problem.

These economic growth models portrayed development mainly as a function of capital investment the level of which is dependent upon domestic savings and capital imports. When these theories proved more or less ineffective in transforming the economies of the world's poorest countries, economists and social scientists began to look for other feasible alternatives to bring about the much coveted economic growth and development. A new wave of thinking emerged during the 1950's and 60's which suggested that investment in human resources rather than in economic factors of production was the key to solving the under-development dilemma.

Human Resources and Development

John Kenneth Galbraith (1958) suggests, for example, that the principal limiting factor in achieving development is the failure to invest in people.³⁷

In a similar vein, Theodore W. Schultz (1960) suggests that the most important factors to development seem to be the improvement of the human material through better health and training and through the development of science and technology.³⁸

B.F. Hoselitz (1965) reinforced the human resource development theory when he published his findings on human resources and their relationship to development. Hoselitz found the following common characteristics in countries where returns to investment in human resources were considered high:

- (a) Highly developed economies with negligible subsistence sectors and highly important exchange sectors.
- (b) Highly diversified occupational structures; considerable degree of specialization, hence substantial need for elaborate training programs.
- (c) Relatively full employment and efficient labour markets.
- (d) Highly developed communications systems dependent on assumed universal literacy.
- (e) High degree of social and occupational mobility.³⁹

Similarly, Harbison and Myers (1964) attempted to establish a relationship between development and educational progress. Using correlation analysis, they surveyed representative samples from schools in seventy-five countries based on enrolment in

second and third levels of schooling. Results of their experimentation suggest a positive relationship between the gross national product (an index of development) and the levels of human development based on education. Thus Harbison and Myers suggest the existence of a causal relationship between levels of schooling and economic development.⁴⁰

Gunnar Myrdal argues that development is adversely affected by an imbalance in the distribution of regional and international resources. Such economic inequalities accelerate gains in the richer and more developed countries while at the same time serving as incentive to attract the more viable human resources away from the poorer, less developed countries. Myrdal suggests that international market forces mitigate to make wealthy countries wealthier and poor countries poorer. This situation, according to him, can only be remedied by a more equal balance of power.⁴¹

One weakness of Myrdal's theory is his failure to acknowledge the inherent fallacy in suggesting that poor countries can bargain effectively from a position of weakness. He asserts that greater bargaining power for the poor nations is needed, but he does not suggest how this is to be accomplished. Realistically, no developing country bargaining from a position in which it is the acknowledged underdog can hope to achieve parity with the powerful and richer nations.

While the importance of economic phenomena to the development process must be recognized, Myrdal places too little importance on the human resource element. If any change is to be brought about in a society, regardless of the economic factors at

work, such change can only be effected as a result of human effort. Effective growth depends largely on those human beings who mobilize the economic factors. Indeed, as will be demonstrated later, the majority of the developed countries owe their achievements largely to the efforts of their human resources. This fact is being recognized and capitalized upon by the vast majority of developing countries.

Development Strategies

The tendency for developing countries to pattern their development policies and strategies off those of developed countries is not co-incidental. The colonial heritage of these countries include a number of institutions created under colonialism which did not allow for indigenous autonomy. A number of factors including granting independence to the vast majority of their colonies by European colonizers, gave birth to a new wave of thinking among formerly colonized peoples.

In their zeal to achieve technological advancement and economic growth, leaders in developing countries invariably look to the more developed countries for models of economic, political and educational systems which they adapt to their needs. For them the question of appropriateness is not an issue, since it is easier to copy from already developed countries than to develop systems of their own, especially when all the indications point to the apparent success of the systems in use in the developed countries.

Because they had been dominated and ruled for centuries according to the policies and theories of western institutions, political and economic preparation prior to their

independence assumed that development for the majority of developing countries, would necessitate whole-sale transfer of western technology and capital to these societies. Tradition and modernity were seen as non-compatible objectives. What was modern (western) was considered by the new leaders as good, and what was traditional was considered bad. They had been conditioned to think that way. Political development was equated with institutional transfer, and the civil service, an electoral system of government as opposed to a heritage system, and western-style legislative bodies were all turned over intact to an indigenous population who had little training and less understanding of the intricacies of the systems which were being entrusted to their control.

Thompson (1981) suggests that development theory in the developing countries of Africa, during the early post-world-war II years, was in a somewhat confused stage, with many 'planners' merely copying blindly from patterns established by western developed nations. No consideration was given to philosophical and structural differences between the already developed nations and the newly developing areas of Africa.⁴² The same situation existed in other developing areas like Latin America and the Caribbean.

Economic thinking at the time tended to be Keynesian in nature, emphasizing the Nation State rather than the individual. Control of the factors of production were to be centralized in the hands of the governing elite. As a result of this type of thinking, massive amounts of capital were poured into the developing countries with the distinct belief that this was all that was required for development to take place.

It was popularly believed that if sufficient capital could be provided, (land and labour being already abundant), with the support of the existing technology in the already developed countries, development would be almost automatic. It soon became apparent, however, that it would take substantial financial assistance to get these countries to reach a point of economic take-off where their economies would be capable of self-sustaining growth.

This type of orientation resulted in policies which tended to increase inequality between rural and urban areas, and led to large-scale migration to the urban centres. Dependence on western technology and capital gave rise to what has been termed by some economists as a 'top down' model of development the characteristics of which are as follows:⁴³ (a) Transfer of large-scale mechanized agricultural practices to small rural farmers; (b) Changing technology of individual peasants by simply showing them "how it works"; and (c) Expansion of institutions which do not serve the interests of the local population.

Such policies led to inefficient production and a general realization that new policies have to be found to achieve the type of development which is sought. Out of the search for new alternatives to the 'capital infusion' theories, the idea emerged that the desired effects could be achieved by looking at the examples of the already developed countries most of which had pursued policies which emphasize the

development of human resources, paying special attention to improving the qualitative aspect of the labour force through education and training. Because capital investment and technical processes were seen as being useless without human knowledge and effort, education and training came to be regarded as central elements in the concept of development.

The records of countries like the United States, the Soviet Union and Denmark, for example, indicate a significant positive relationship between economic growth and the quantity and quality of the education provided to their work-forces during periods of rapid economic growth which these countries enjoyed. It is unclear, however, whether education was a cause or a consequence of this rapid economic growth.

Reinforcement of the education for development theory is nevertheless provided by the track record of countries like Japan, Israel, South Korea and Taiwan, all of which adopted human-capital-intensive development strategies in which massive investment in the improvement of the educational level of the population was seen to have a direct relationship to subsequent productive employment opportunities in these countries. The explosive economic growth in Korea, for example, followed a period in which that country's educational level was twice that of an average country at a similar level of development.

A series of conferences on education and its relationship to development conducted by UNESCO in the early 1960's provided incentive for a large number of developing countries to jump onto the "education for development" bandwagon. The proposals

coming out of the Addis Ababa conference in 1961 for example, resulted in almost wholesale adaptation of a policy of free universal primary education and an increase in secondary and post secondary education by a large number of developing countries in Africa, Latin America and the Caribbean.

According to M.K. Bacchus (1980)⁴⁴, one prominent colonial citizen who influenced development theory when many developing countries were achieving nationhood, was Professor W. Arthur Lewis a graduate of the London School of Economics and winner of the Nobel Peace Prize in 1979. Lewis' two-sector theory of economic development contributed greatly to the willingness of leaders in developing countries to continue expanding formal education. In its most simplistic terms Lewis' theory holds that because of an ostensibly 'unlimited' supply of labour' in most of the developing countries, as technical progress takes place, profits would increase, capital formation would take place and re-investment in the economy would result. Ultimately, there would be an increase in the demand for labour and the surplus labour force would be utilized in the industrial sector, by which time, the country would have reached its stage of economic take-off. The emphasis would then shift towards industrialization through continuous reallocation of labour from the agricultural to the industrial sector of the economy.

It is at this point, according to Lewis, that the emphasis on education would be most rewarding, since the labour supply demanded in the industrial sector would be for manpower with varying levels of formal and non-formal education and training to meet the assumed needs of the emergent 'modern' or industrial sector.

Theoretically, Lewis' argument is sound but various constraints both internal and external have precluded the type of development envisaged by Lewis from taking place in the economies of developing countries. For example, in spite of the 'unlimited' supplies of labour which Lewis cites, wage rates in the industrial sectors have not remained constant as Lewis predicted, but have in fact been rising steadily to the disadvantage of workers in the traditional (agricultural) sectors of most developing countries. Furthermore, there is little evidence to suggest that the growth rate in the industrial sector has been such as to absorb the surplus labour force into that sector, in any of the developing countries of Africa or the Caribbean or indeed in any other developing area. At the same time, as Bacchus points out, workers have been abandoning the agricultural sector at such a tremendous rate, due largely to apathy, dis-illusionment and the attraction of higher wage and salary scales in the white-collar and industrial jobs, that the structural unemployment which has resulted in the economies of many developing countries, makes Lewis' theory questionable.⁴⁵

Notwithstanding, there has been ample evidence to suggest that economic growth of developing countries hinges at least partially upon adequate preparation of their human resources through education and training.

Economic growth has become the universally accepted measure of prosperity of a nation. As such it can be regarded as a key variable in the process of development. Development implies an increase in the productive capacity of a country and other social changes designed to improve the quality of life of a people. Traditionally, education and economic growth have been inextricably tied together. Educational

systems produce the knowledge and skilled manpower necessary for technological advancement and economic growth. The country that strives for economic growth and development, must invest heavily in education. This has long been accepted by the vast majority of developing countries.

The question which is yet to be resolved in the case of the Leeward Islands, however, is what type of education policies they should adopt to break their dependence on outside forces and generate meaningful economic development from within to make them self-reliant.

A.R. Thompson (1981) suggests that there is a certain fallacy in developing countries adapting strategies of development followed by the industrial nations. He cites the following reasons for his assertion.⁴⁶

- (a) The level of development from which most developing countries have had to start is about one-third lower than that of pre-industrial Europe.
- (b) The significant difference between world economic situation when the industrial powers were developing and the situation confronting developing countries today makes application of such strategies dubious.
- (c) Developing countries have been forced to introduce advanced technologies into largely pre-technical societies in order to compete with the industrialized countries. They should, he suggests, be pursuing instead a slower pace of technical preparation of their people.

Thompson notes as well, that the Soviet Union was a major industrial power long before political revolution made education widely available. The same was true of the first Industrial Revolution in the United Kingdom. Similarly, Japan had unusually advantageous conditions for agricultural expansion in the latter part of the 19th century which contributed to its rapid modernization.⁴⁷ In comparison, the majority of developing countries were at a much lower level of economic and technological preparedness when the call for universal primary education went out in an effort to speed up their development. Because they were starting from a weaker base and because they lack an abundance of natural resources which they can exploit, it is reasonable to expect their development to be slower.

World economic conditions today present both a threat and a challenge to economists. Economic theory is being increasingly questioned and acceptable explanations of economic phenomena are becoming harder to conjure up. The international trading situation is cruelly competitive and the standard of technology is far advanced of the requirements of developing countries. These conditions require skills of a different type than were necessary when the developed countries were going through their stage of economic 'take-off'. The strategies which they adapted are therefore not applicable to today's situation. Developing countries today require strategies which would minimize their dependence on foreign technology, reduce competitiveness and foster greater cooperation. As Thompson contends, with justification, the idea of using capital - intensive technologies in countries which have a shortage of capital and an abundance of labour is absurd.⁴⁸ Sophisticated technology is not only expensive to acquire, it is costly to support. Adaptation of new technology should be

extensively researched and the costs versus the benefits seriously explored before technology is adapted, not after. Finally, the effects of technology on the labour force and on the economy in general should be of paramount importance in any serious consideration of technological improvement.

One important dimension of the development process which must be emphasized is the development of people. True development centers around the development of human potential, therefore any development of the Caribbean must come from Caribbean people themselves bearing in mind that people cannot be developed, they must develop themselves.

In this context Amadou - Mahtar M'Bow, director General of Unesco (1977) declared:

Development can only come from within. It must be endogenous, thought out by people for themselves, springing from the soil on which they live and attuned to their aspirations, the conditions of their natural environment, the resources at their disposal and the particular genius of their culture.... Education should accordingly contribute to the promotion of such endogenous development.⁴⁹

This concept of development implies an unselfish attempt by each country to exist not for itself alone but in an atmosphere of international cooperation within the frame work of a new economic order.⁵⁰ It implies as well a new 'freedom' in

development strategy to involve people in developing countries in development planning from its inception so that they can have a say in what is done rather than merely being told how it is done.

In this connection, Rex Nettleford, Director of Extra Mural Studies, University of the West Indies had this to say:

Among people who have never been allowed to think for themselves and who have always been expected to be executants rather than creators, it is essential that there is no isolation of the activity of conceptualization from the activity of practice.⁵¹

A.W. Thompson sounds an important note of warning, however, by advising that the task of promoting real planned development is far more difficult than we are sometimes led to believe by the jargon of development plans. We must beware of assuming too readily that we have the basic understanding of the processes of change and the techniques to control them, for experience is teaching us that this is by no means the case.⁵² The record of continued slow economic growth and underdevelopment in the majority of Third World countries, attests to the gravity of Thompson's warning.

Chapter 2 - Theoretical Framework of the Problem

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PART II

CHAPTER 3

REVIEW OF PERTINENT LITERATURE

Education as a Vehicle for Development

Published literature relative to education and development in the emerging Caribbean is limited. More specifically, pertinent information on the Leeward Islands is restricted to a few regional publications, booklets and pamphlets produced periodically, newspaper articles, unpublished government documents and restricted reports. This section of the study will therefore concern itself primarily with a review of discussions relating to education and development in a general sense and will attempt to relate the ideas which emerge to educational change in the Leeward Islands.

The discussion in the previous section establishes that the concept of development cannot be considered in any one particular sense, therefore one cannot be absolutely certain just how education will facilitate the development process. There is general agreement, however, that education contributes to development in various and subtle ways even if these cannot be determined with any strong degree of accuracy.

Studies to determine the extent of the inter-relationship between formal schooling and the early stages of development in Western industrialized countries have been largely inconclusive. Educational historians appear generally uninterested in statistics of this nature, although their treatment of other topics often tends to shed light on trends in education.¹ C. Arnold Anderson (1965) suggests, for example, that the data appears to support the generalization from cross-sectional analysis of contemporary Western societies, that approximately 40 per cent of adult literacy or primary enrolment is necessary for economic development to take place, provided other supporting conditions of development are present.²

Studies by Harbison and Myers cited previously, suggest as well, a causal relationship between educational progress and economic development.³

Educational Strategy

Adam Curle specializes in the study of education systems in developing countries. One of his most influential contributions to the field of development is his (1970) study of educational and social factors in relation to economic growth in under-developed countries.⁴ This exhaustive and well-structured study examines in detail some of the principal causes of underdevelopment, factors which contribute to the perpetuation of the phenomenon, and the role of education in the process of social and economic growth. It suggests as well, a bare strategic framework for tackling the problem of under-development. His underlying theme is that underdeveloped nations can only change through the development of their people along a continuum of equality and social justice⁵ and suggests that the major instrument for inducing people to undertake the transformation of a society is the educational system. He is careful to point out, however, that the 'wrong' kind of education or disproportionate amounts of education not 'intrinsically undesirable' can be more wasteful of human and economic resources than too little.⁶

In the first two chapters, Curle attempts to set the stage for the discussion which follows by giving some reasons for the under-development problem in developing countries and by outlining the aims of development. He skilfully develops the argument that under-development stems from a number of factors having a basis not

only in economics, but in administration, sociology and psychology as well.⁷ He sees the very nature of the social structure in a majority of developing countries as a contributor to their slow economic growth and suggests that education, as the most effective means of altering a people's outlook, is one way in which the structure of society can be modified.⁸ Curle admits, however, that gross inequalities and stratifications in the social structure which bury talent and smother initiative will not be eradicated merely by education and training and suggests that growth is restrained by the fact that the small proportion of educated people is held in a sort of straight-jacket by the very nature of under-development with its inequalities, limitations and crass ignorance, the only way out of which is through a "crash programme" of educating, training, encouraging, helping and organizing enough people to do the work which growth entails.⁹

Unlike such analysts as Myint and Nurske cited earlier, who see economic factors as the bases for under-development, Curle develops a theory of development around the concepts of equality and social justice which he thinks are essential to development. Implicit in the principle of social justice is the idea of equality of wealth and status and the protection of members of a society from exploitation and victimization. Cooperation instead of competition is stressed as Curle holds that excessive competition exercises a disruptive effect on human relations.¹⁰

He condemns the idea of developing countries patterning their development strategy off those of the developed countries, and argues that in using the industrialized countries as a model for development, under-developed countries run the risk of perpetuating their "client" status under a new form of colonialism in which their

former political subjection is merely exchanged for economic exploitation. This line of argument has gained substantial following among social scientists and development planners, who like Curle, hold that true development necessitates the building of new institutions, based upon the local resources of the individual country. This re-direction in the approach to development, depends to a great extent on the educational strategy employed.

Curle devotes the latter chapters of the book to an in-depth analysis of educational systems in several developing countries and examines the advantages and disadvantages of different approaches to education. He offers some suggestions for restructuring the society to create a new class of people strong enough to establish its own values of equality and social justice which he suggests will ultimately break the two great enemies of under-development - traditional inertia and autocratic rule of a non-egalitarian minority. The arguments he puts forward suggest that full development requires more than just technically trained people; it requires as well the combined energies and abilities of a large number of educated persons. But if these persons cannot be readily absorbed by the economy their productive potential would not be fully exploited and they could be a threat to the stability of the society out of frustration and desperation. This latter question Curle does not address and this can be viewed as one weakness of his otherwise thorough assessment of the problem.

Curle seems ambivalent as to whether the emphasis in developing countries should be on 'investment' education or 'consumer' education, but he contends that the extent and nature of the policy adopted would be dictated by economic expediency.¹³ Although originally published two decades ago, Curle's approach to under-development continues

to be relevant, since in this 'third decade of development', the problems of underdevelopment remain basically unchanged. What seems to be wrong, is the approach to solving these problems which appears to be still strongly rooted in models used by the industrialized nations - models which are inappropriate to the needs of developing countries.

People generally resist change. For this reason, long standing customs and traditions are dispensed with only after a long and tedious process. Western influenced education in a majority of developing countries is a case in point. According to Brown and Hiskett (1975) developing countries of Africa find it hard to resist Western education because it enables them to take advantage of modern technology which they see as an essential pre-requisite for economic growth and social development, even though it threatens to bring with it, disruptive social changes.¹⁴ This statement raises an important question for education in Africa which may also be applicable to other developing areas. Is it possible for a country to develop without destroying the very fabric of society? It is this vital question that Brown and Hiskett address in Conflict and Harmony in Education in Tropical Africa. The book is a compilation of papers presented at a three-day inter-disciplinary conference on 'Conflict and Harmony between Traditional and Western Education in Africa', at the School of Oriental and African Studies of the University of London in March 1973. The work is divided into three parts.

Indigenous African Education:

Part I attempts to show that education as a form of initiation into the life of the adult community is an ancient concept whereas schooling as we commonly know it is a relatively recent development in Africa.¹⁵ Because traditional African society saw children as a benefit to the community as a whole, the community was the primary agent of education and informal education is still provided within this general social context.¹⁶ Brown and Hiskett suggest that some principles inherent in contemporary formal education derive directly from indigenous African education. These include apprenticeship schemes such as evolved in Europe from medieval guilds, history of folk-lore passed on from one generation to another through oral tradition, emphasis on community participation similar in nature to self-help schemes, and involvement in community development.¹⁷ They contend, however, that it would be incorrect to equate indigenous African education too closely with contemporary theories of education since indigenous education concerned itself with 'coherence', that is, the maintenance of the community in its traditional form, while contemporary theories of education are concerned with the development of the community.¹⁸

Islamic Education

Part II of the book looks at Islamic Education in Tropical Africa and establishes the point that the Islamic System of education is the only practical literate alternative to the Western system for most generalized application in Africa. Because of this, some progress has been made in integrating Islamic with Western education. The process suffers mainly because of differences in content and values. However, insufficiently equipped teachers as well as inadequate teaching materials also retard the process of integration.

Interaction and the Current Situation - In Part III an attempt is made to indicate some of the factors worthy of consideration in promoting educational development, and to examine problems of moral and technical acculturation. One chapter of particular relevance to endogenous development is J. Cameron's examination of Julius Nyerere's "Education for Self Reliance" which attempts to explain in educational terms the political intentions of the Arusha Declaration¹⁹. In simple terms, Education for Self Reliance declared among other things, the following: (a) schools must inculcate the correct social attitudes i.e. the social goals of living together and working together for the common good. (b) Schools must prepare young people for work. In a rural society such as Tanzania's, improvements will depend largely upon the efforts of the people in agriculture and village development. It declared as well that 'education must produce good farmers and suggest that to accomplish this, the entire school system must be drastically changed.

(c) Education must be complete - it must be preparation for life.

(d) Schools must be communities - practicing the precept of self-reliance.

The main theme throughout, is that the 'elitism' of the educated must be ended, learning should be by doing and service to the rural community and the nation never forgotten.

Nyerere's educational proposals are based on traditional African society which he sees as essentially "socialistic" but Cameron contends that Nyerere's picture of African traditional society tends to be both idealistic and incomplete. According to Cameron, Nyerere refuses to acknowledge that there was not one but scores of traditional African societies and that these differences were reflected in great differences in educational practice.²⁰ Cameron's main argument then is that Nyerere had no real traditional educational model to refer to except in a very generalized and idealistic form. Nyerere's claim that colonial education was irrelevant is questionable Cameron contends, since at the time of independence Tanzania's colonial education was a very broad-based multinational, less purely colonial one with Swahili as its own national language.²¹

Despite Cameron's criticisms, Nyerere's proposals for educational change in Tanzania are practical and are ideally suited to the type of society he is trying to create. Because they do not adhere to traditional Western models, it is easy to understand why they would be regarded with suspicion. However, as Nyerere advises, people in developing countries must learn to reject those things which are considered best by Western standards and develop instead those things which are more appropriate to our needs.²²

This advice is pertinent to developing countries everywhere. The need for developing countries to look more to their own resources both human and capital and rely less on 'foreign aid' and outside forces to bring about development, is becoming more and more the theme echoed by analysts of Third World development problems.

Brown and Hiskett, in another chapter, emphasize the importance which is attached to education in every facet of African society. Education, they claim, touches more citizens than any other sector except perhaps farming. It uses the majority of national and international resources and is the largest employer of trained personnel. African parents regard the process of education as a means of providing their children with a better life, regardless of their own socio-economic position. Children in turn see school as a stepping stone to a job while administrators and politicians see education as a vehicle to perpetuate a form of government. The church sees education as a means of inculcating ethical and spiritual values. International agencies regard education as a source of manpower for development and modernisation. It would be difficult, they contend, to find even an illiterate peasant without a view about the local school or its personnel.

The picture they paint is not, however, peculiar to Tropical Africa; the same holds true in varying extents, for most of the under-developed countries of the world, including the Caribbean. Brown and Hiskett have attempted an immensely complicated task since education in Africa, with its complex social structure, dialects and life styles cannot be understood by easy generalisations about 'developing countries'. They admit that the problems of ethnicity, geography and religion involved

are too basic and complicated to permit generalisations. Furthermore, these problems cannot be understood by equating education with Western type schooling.²³

Much of the earlier literature on Third World Development concerned itself with looking at Western models of development and commenting on the appropriateness or inappropriateness of these models for developing nations. Some attempt was made (by Curle, Foster and Adams and Bjork for example) to look at development from a Third World perspective in an attempt to offer workable alternatives. Some of these writers succeed to an extent to put the problem in correct perspective, but one writer who offers a comprehensive explanation of why the poor in the developing countries stay poor and how they are now tackling the relentless cycle of deprivation is Paul Harrison, a freelance writer and journalist based in London.

Inside the Third World

In his clear, concise and dramatic style, Harrison presents his reader with first-hand reports from the developing countries of Asia, Africa and Latin America of the new approaches in each major field of development and shows how the concepts of self-help, people's participation, co-operatives and appropriate small-scale technologies are actually being employed as alternative approaches to the Western models of development. Harrison addresses the subject of Third World underdevelopment in two separate publications. His first publication Inside the Third World²⁴ attempts to present in real unglamorized terms, a penetrating diagnosis of the kind of poverty in which three quarters of the world's population live today. He traces the historical

roots of poverty in the developing countries and offers an explanation of the causes and consequences of development in Western countries before that of Third World countries.

Harrison discusses the obsession of Third World leaders with Western models of development because of their Western education, familiarity with Western ideas and Western-style institutions of government which they had inherited and suggests that schools have been potent instruments of Westernization among the young - often imposing Western uniforms on pupils, teaching syllabuses emphasizing modern, urban activities and values. The result of this, he contends, is that young people emerge dazed and uprooted, despising their own culture.²⁵ As Harrison points out, the schools' indoctrination is reinforced by the mass media with Western marketing methods, Western products, Western life-styles and Western consumerist individualism. This anomaly still obtains even today in the majority of developing countries reinforced by the canned propaganda of Western-made movies, television and video programmes.

Harrison's critique of the internal obstacles to development are convincing. The inappropriate educational systems, agricultural and agrarian problems, unemployment and other social problems, political corruption, instability, the dynamics and effects of the population explosion are all dealt with authoritatively.

He contends that the obstacles to development can only be removed through the imposition of immediate meaningful reforms tempered with social justice²⁶.

The Third World Tomorrow

In his follow-up publication²⁷, Harrison presents an analysis of a new ethos which is emerging among developing countries, and which he suggests is beginning to erode the cell walls of poverty and deprivation. According to him, world-wide conditions during the late sixties and early seventies, characterized by rising unemployment, crime, drugs and the youth revolt against materialism, led to increased questioning of Western growth philosophy. Concern for social justice replaced the emphasis on materialism and individualism; Western growth rates slowed and disenchantment was the order of the day. At the same time awareness was growing that despite large capital inflows into the developing countries, poverty and inequality were on the increase in most, if not all of these countries.²⁸

It was against this background, Harrison suggests, that a new philosophy towards development emerged towards the end of the seventies.²⁹ Implicit in the new thinking is the rejection by Third World countries of the 'Western Model' of development which they have attempted disastrously to follow since the 1950's and 60's. In its place, indigenous traditions of self-help combined with increased social justice have been revived and extended with the help of the World Bank.³⁰

Harrison paints a rosy picture of egalitarian traditions which he claims are now widespread throughout the Third World and gives the impression that the stage has now been set for a crushing defeat of poverty and social injustice in the under-developed

world, all of which appear somewhat utopian when weighed against the stark statistics of Third World unemployment and continuing world poverty.³¹ Harrison's study presents a situation which is deceptive to say the least. The new approaches which he claims are developing might be helping to alleviate pockets of poverty here and there, but in terms of there being a widespread, coherent strategy developed and applied in 'virtually every field' as he suggests³², the increasing poverty, the inequality, unemployment and conflict in developing countries belie Harrison's assertions. He offers no concrete evidence to support his claims. The strength of the study lies in his frequent use of case studies of actual experiments and innovations being conducted in developing countries out of which new models of development are emerging. The 'People's School' in Savar, Bangladesh is a case in point.³³

The school is an experiment in 'open education', emphasizing freedom of choice, a co-operative system of learning and a marrying of the world of school with the world of work. The school attempts systematically to eliminate all the deterrents which alienate children of the poor from education and to provide them with the practical knowledge they need to improve their lives. The physical structure is simple and homely, the curriculum is practical and everything possible is done to help the children combine school with work. It is a practical, commonsense approach to education which is ideally suited to the needs of the majority of Third World countries. Harrison points out that after only eighteen months at the school, the oldest pupils had made as much progress in reading as they would have in three years of formal schooling.³⁴ He makes the point that educational reform must be introduced on a nationwide basis if it is to benefit a majority of people in society. This however, can only be done by

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governments. Harrison cites the Ivory Coast as one country he visited where the government was trying to provide a national curriculum which would equalize the quality of education throughout the country - and one which would be relevant to practical development needs.³⁵ In essence this innovative approach to educational reform employs solar powered television transmission of practical education courses beginning at the primary level. The material which according to Harrison is closely geared to the country's real development needs, encourages creativity and adaptability rather than mechanical rote learning. Each level attempts to be self-sufficient so that the pupil leaving school after even the primary course, would be equipped to take his rôle in society as a worker, farmer, citizen or parent.³⁶

This practical approach to education which emphasizes the real needs of a village, a town or a nation can do much more for Third World development than the Western-oriented approach which encourages maintenance of the status quo, and which favours materialism, city life and non-manual work.

Education and Development in Africa

A.R. Thompson (1981) in his examination of education and schooling in Africa makes the point that the educational processes of a society reflect its nature and its needs and as these change so its educational processes may have to change.³⁷ Implicit in this statement, is the idea that as a country progresses and tries to attain 'modernization', its educational systems should change accordingly to promote and accommodate the desired transformation. But, as Thompson contends, it should not be necessary to abandon completely, indigenous educational traditions and adopt 'Western'

patterns of schooling which are far less efficient for enabling a child to fit into his society. Indigenous traditions could be built upon to provide the kind of education which would facilitate modernization while at the same time maintaining its cultural relevance.³⁸

Thompson, a senior lecturer in the Centre for Overseas Studies at Bristol University School of Education was an Education officer in Tanzania. He taught at the University of Dar es Salaam in Tanzania and at the University of Lagos in Nigeria and has made frequent visits to African countries as an educational consultant. It is from this vantage point that he was able to acquire indepth knowledge of the problems confronting African countries in their search for education and development.

In his clear and concise style, Thompson offers a detailed analysis of the relationship between education and development in Africa, examines some of the problems involved in educational reform and in non-formal educational approaches and looks at ways in which formal and non-formal approaches to education might be combined to meet the various learning needs of different people.

One of Thompson's main themes is that although it is accepted that education plays a major role in promoting various kinds of development, educationists have not been sufficiently well equipped to understand the processes of social change and development to make authoritative pronouncements on what education should and should not do, or what it can and cannot achieve in particular circumstances.³⁹ His point is well taken. Too often lay persons tend to forget that education is only one factor in the process of social change and development and that education has to be

institutions for meaningful development and social change. Implicit in the papers, is the idea, that these changes can be achieved largely through re-orientation of formal and informal education and training in Caribbean institutions.

Demas criticizes the importation into the Caribbean of foreign institutions and models, particularly the imitation of educational practices of Great Britain and suggests that (future) educational changes in the region will emerge from dialogue between members of the teaching profession, parents, school children and government leaders.⁴⁴ He points out that the educational systems of the Caribbean are deficient not only in quantity, but likewise in quality - meaning their content, orientation and appropriateness. This latter theme resurfaces frequently in his literature. He suggests, for example, the need for greater emphasis on technical and vocational training, the need to make mathematics and science compulsory and examinable, the need for greater West Indian orientation in what is taught and in the application of general scientific principles through the use of appropriate text books, and through the teaching of West Indian History and Social Studies in a West Indian context.⁴⁵ Perhaps Demas' most potent criticism in this regard is his condemnation of the education systems of the Caribbean for failing to integrate the world of school with the world of work, which he suggests, is the key weakness of these systems from which most of the defects arise.⁴⁶

This theme might not be new, but it is one which is gaining increasing mileage in development circles. Nyerere of Tanzania for example is an ardent advocate of this philosophy.⁴⁷ Demas' suggestions for such an integrated policy appears feasible. He proposes for example, a system whereby work and study are either combined or

alternated at the secondary and university levels. In such a system, secondary schools would in some courses provide training simultaneously for regular pupils and for farmers of the local community, while full-time students will engage in part-time field work. His choice of agriculture in this example is unfortunate. I say this guardedly. However, bearing in mind the low esteem in which agriculture is still held by the majority of the 'educated' in the Caribbean, such an innovation in Caribbean education using agriculture as a point of reference, might be misconstrued and the idea might be doomed to failure before it even gets off the ground. This should not however, tarnish the relevance of Demas' proposal. The concept has achieved remarkable success in both Cuba and China and has won admiration from North American and European students of economic development.⁴⁸ As Demas points out, the educational systems of Cuba and China provide more pertinence for Third World development, than those of Western developed countries.⁴⁹

A collection of addresses by Dr. Courtney Blackman, Governor of the Central Bank of Barbados, published under the title The Practice of Persuasion,⁵⁰ examine several aspects of Caribbean development problems ranging from marketing, banking, manufacturing to tourist promotion and cooperatives. One common theme runs throughout these addresses - the importance of proper management of human resources in the process of development. Blackman contends that possession of natural resources and elaborate planning departments do not in themselves guarantee economic growth of a country. Rather it is the development and the use which a country makes of its human resources which inevitably determines the level of economic growth and development that a country experiences.

Blackman cites the case of Japan and its post World War II 'miracle' growth rate which was achieved almost entirely without natural resources. Japan depended upon the importation of most of its raw materials. The significance of this for the Caribbean region must not be overlooked. Blackman's main point is that the lack of natural resources must not be allowed to retard development initiatives. Rather such indigenous resources as exist must be exploited to their fullest extent. In this regard, Blackman holds that the Caribbean's richest resource is its human resource which has infinite potential in terms of intellectual development. 'What people can do with their hands and feet is severely limited. Their intellectual potential is infinite'.⁵¹

Blackman suggests that any development strategy for small countries should include elements of the following:⁵²

- (a) continuous upgrading of the quality of human resources.
- (b) Development of the country's managerial capacity.
- (c) Development of de-centralized export agencies.
- (d) Close monitoring of foreign owned enterprises.
- (e) Development of policies and procedures to ensure efficient business operation.

Achievement of these objectives require sustained efforts at human resource development through education and training; development of managerial skills and the ability to identify and exploit opportunities for development whenever they arise.

Blackman's commentary on development issues in the contemporary Caribbean is pertinent. His association with the Central Bank of Barbados has no doubt afforded him the opportunity to gain in-depth understanding of Caribbean economic systems. These will be looked at more closely following the discussion of political factors influencing educational change.

Politics and Educational Change

Elsewhere in the study, it is suggested that education is one of the primary vehicles that a country can employ to speed up the process of development. To maximize its effectiveness, educational change must be introduced on a nation-wide level and because this necessitates government involvement, education must be considered a political agent. Thompson (1980) suggests, that the idea of education being considered in any way political, is often resented by educators brought up in a Western tradition whose main concern is that schools are not mis-used for political purposes.⁵³ However, because the process of providing and maintaining education systems is complex, centralized planning and coordination are of paramount importance. Similarly, because the high costs of education must be funded by the public then it must be subject to public i.e. political accountability.⁵⁴ Michael Manley, former Prime Minister of Jamaica argues that since few societies are content with the status quo, there is continuous desire for change. Decisions about the way in which they should be changed are political decisions, taken primarily by the legitimate political authorities. Education by its very nature either tends to preserve the status quo or promote change, depending on how it is organized, who organizes it and the purpose to which it is put. Because of this, Manley concludes that education has a political function whether or not this function is deliberately and consciously planned.⁵⁵

If then, we consider education as a political agent of change, it becomes vitally important that those persons who control the political processes in a society, have some understanding of the process of change; how it may be initiated, controlled and directed. Thompson suggests, that the processes of change and the techniques to

control them are not easily understood⁵⁶, therefore the task of promoting planned development is often far greater than one is led to believe by the smooth sounding language of development plans.⁵⁷ Brookfield argues similarly: 'to pretend that we have yet understood the process of change so well as to be able to predict it... is the most arrogant conceit. The task remains before us, and what any of us has yet achieved is no more than a beginning'.⁵⁸

Because change is not a simple cause/effect process, one single instance of change might be the result of a number of different causes and influential factors, therefore when we consider the role of education in the process of change, it must be borne in mind that education as a social institution, affects and is affected by a number of other factors operating in society which combine to influence the outcome of the educational process. It must be remembered also, that development hinges upon the intimate interaction of various disciplines, none of which offer any simple clear-cut paths to success. We must therefore be cautious in setting precise objectives for our education systems.

Some analysts argue nevertheless, if certain kinds of changes are to be effected through education, then it is necessary to define precisely the kind of society it is that we wish to create and that only then shall we be in a position to decide how to use education to bring about that society.⁵⁹ Brown and Hiskett suggest, for example, that a clear national policy of educational development is mandatory if efforts at educational change are to be successful.⁶⁰ The same theme is echoed by Thompson who holds that development involves the establishment of declared principles, according to which a society is to be developed and machinery whereby decisions may

be taken in accordance with these principles or action be measured against them.⁶¹ The importance of establishing clear objectives for development is borne out further by Julius Nyerere who makes the point that only when people in developing societies are clear about the kind of society they are trying to build, can they design the type of educational service to serve their goals. He suggests that government administrators and planners in developing countries must therefore clarify and articulate the direction they want development to take and the methods to be adopted to achieve their goals.⁶² Nyerere's policy of Ujamaa or traditional African familiness is one example of an articulated ideology which seems to have produced positive results. Ujamaa advocates social justice and emphasizes the importance of social equality, respect for dignity and cooperation within the family structure. It emphasizes as well, the importance of education in preparing students at all levels to be of service to their community.⁶³ Nyerere's aim is to provide Tanzania's people with an education which integrates the learning process with total life experiences - the provision of knowledge not only in the class room but through experience on the farms and in industries. Within the ambit of this philosophy, schools are no longer to be regarded as 'ivory towers of learning', but are to serve the needs of the community and be a part of it.⁶⁴ Part of the success of Nyerere's Ujamaa policy lies in the extensive and deliberate efforts he makes to promote his ideology to the Tanzanian people. He is not afraid of going into the fields, or of getting his hands dirty. It is this type of 'hands-on' approach to development that is needed for endogenous development to take place.

Adam Curle cites governmental apathy and ignorance of the requirements of development as two factors which interact to keep developing countries in a state of stagnation.⁶⁵ However, he admits that this does not always obtain, since progressive

governments and clear policies for economic growth do not in themselves guarantee development.⁶⁶ Nigeria is a case in point. Since independence the government of Nigeria has adopted relatively clear policies for the promotion of educational advancement and economic growth yet there still exists vast gaps between the wealthy, and highly educated minority on the one hand and the vast majority of the population who are poor and illiterate.

Curle sees democracy as a pre-requisite for equality in any society - the more complete the growth of the democratic process, the more absolute the standards of equality.⁶⁷ Curle's ideal society is therefore democratic in nature with a democratic system of education to reflect the main features of the society. The International Commission on the Development of Education argues similarly, that rational humane education is virtually impossible in an unjust society and suggests that regimes based on authority from the top and obedience from the bottom cannot develop an education for freedom; a society woven out of privileges and discrimination can hardly develop a democratic education system.⁶⁸ A democratic system of education permits equality of opportunity and access to positions of privilege and promotes the kind of social justice that Curle advocates. Thompson agrees that an extension of educational opportunity so that all members of the society have equal opportunity to compete for the limited number of positions of privilege is one way of fostering political stability and social justice, and creating a more egalitarian society.⁶⁹ One inherent danger in the provision of mass education for political expediency, is the possibility of undermining political stability if the extension of education is not balanced by adequate growth in demand for the 'products' of the education system. The

proliferation of the 'educated unemployed' in Third World countries and the social 'powder-keg' which they represent attest to the potential danger of such a situation.

Thompson (1980) suggests for example, that one study conducted in Kenya (in 1966) showed that of 150,000 children leaving school each year after pursuing a seven-year primary course, only 90,000 could hope to find employment of any kind or to obtain further education. This figure does not include the considerable number who dropped out of school before completing the program.⁷⁰ Another study conducted by the International Labour Office in 1967 revealed that in Western Nigeria alone, almost 97,000 children per year were completing either primary or secondary education. Add to this number, another 124,000 per year who were leaving without completing their courses. The net result has horrendous implications when examined in light of the overall picture which shows the whole of Nigeria employing then just over 500,000 wage and salary earners in government, the professions and the larger commercial and industrial establishments.⁷¹

This steady build-up of unemployed youth in the urban areas of developing countries poses a serious threat to political stability and the maintenance of law and order. Thompson (1980) notes that what is more frightening is the growing realisation that the education systems upon which so much hope had been pinned for economic development, appear to have failed.⁷²

The reasons for their failure are not clear, but a number of theories have evolved which attempt to explain why. A.R. Thompson in an article published in Comparative

Education (Oct. 1977) presents an enlightening analysis of various international constraints upon educational policy in developing countries.⁷³ In his clear and concise style Thompson shows that educational authorities in developing countries have little freedom to pursue the types of policies suited to their needs partly on account of inertial factors within the systems themselves and the societies they serve and partly because of external factors. He argues, for example, that historically created conceptions of the role of schooling among the educated elites and rising elite aspirants in developing countries have generated a high degree of resistance to changes in the established patterns, on the grounds that an education which differs significantly from the internationally accepted norms, may be regarded as inferior and might well be so.⁷⁴

Such groups seem to feel the need to prove their ability according to internationally accepted standards before addressing urgent problems of local and regional importance. Thompson points out that the same way successive generations of educational theorists and planners with many well-intentioned efforts at innovation have failed to gain popular support, so today indigenous leaders encounter ambivalent response from the elite and masses alike towards new localized policies.⁷⁵ The idea is now being accepted, that radical change in education may require as a pre-condition the radical transformation of the social and economic milieu in which it is to be effected. Thompson argues that educational reform is inextricably bound up with social and economic reform and uses Tanzania's self-reliant educational policies to bear out his point. The suggestion is, that the success of Nyerere's educational policies will depend upon the extent to which parallel attacks on social injustice, nepotism and the like are successful.⁷⁶ Such reforms must go hand in hand. Experience has shown that only limited success can be gained from modifying the

educational system in the expectation that the desired change in the external society will materialize.⁷⁷

Paolo Freire, a pioneer in the field of adult education in Brazil holds that the peasant's ignorance is a part of what he calls a 'culture of silence', imposed upon him by the oppressive political and economic system. Because he is landless and powerless he has no means of effecting change or making his voice heard - he therefore has no motivation to educate himself. Freire is of the opinion that the role of education should be to teach the peasant to analyse his own economic and social situation and make him realize it is possible to change it by organized action.⁷⁸ Literacy therefore, according to him, should be taught by awakening the critical consciousness of the individual - a process which Freire calls 'conscientization'. Implicit in the concept, is the teaching of basic literacy in such a way that the learner is directed towards an analysis of his social situation and means by which he could change it. In many developing countries of Africa and Latin America where exploitative and oppressive regimes provide major barriers to development an approach to education such as Freire's could go a long way towards political awakening and social change but as was pointed out earlier, to be effective, educational reform must be introduced on a national basis, and few governments in the Third World or anywhere else for that matter, would be willing to support education programmes which set out to effuse their citizens with political awareness and radicalism - the stuff of which revolutions are made. Education in the majority of developing countries therefore enjoys a safe middle-of-the-road traditional approach, as exists in the developed countries.

High levels of development in industrialized countries have been associated with highly developed formal education systems. This according to Thompson, offered every encouragement to political leaders in developing countries to follow suit and develop similar patterns of education based on the conventional international type.⁷⁹ Structural and philosophical differences were ignored. Because of excessive demands on the limited qualified manpower in the developing countries, it became necessary to import 'expert' expatriate personnel who were ill-equipped to contribute to any fundamental re-thinking about the purpose of education in these societies.⁸⁰ Not only did the importation of expatriate staff mitigate against speedy development of local courses, but the recognition given to the overseas qualifications resulted in the adoption of overseas models of teaching, examination and certification. Further influence by developed countries over educational systems in the developing countries is evidenced by the dependence which many developing countries still have on developed countries for producing teaching materials, text books and other materials produced in the developed countries with an orientation towards industrialized rather than developing societies. Although this is of some economic advantage to developing societies, a major disadvantage as Thompson notes, is the bias imported to the studies approached through these books which are originally produced for marketing in the developed countries.⁸¹

Because donor countries would not subsidize text books which are openly critical of their own countries and social systems, such programmes may be deliberately used to manipulate the intellectual orientation of recipient countries. Dependence by

developing countries on research conducted by expatriate organizations is another area of 'constraint' that Thompson cites. Because they lack the resources for extensive research, developing countries are dependent to a large extent on researchers from industrialized countries who tend generally to reflect ideological stances and biases of their own countries.⁸² Similarly, universities in developing countries have tended to concentrate on high-level academic and professional preparation, neglecting the equally crucial areas of intermediate level training in technical fields and leaving them to other kinds of institutions which are generally deprived of status and consequently, of support. These factors, combined with other subtle 'networks of constraint' like world trading systems discriminate in favour of developed countries by adopting capital intensive, urban oriented and cost-effective strategies of development when labour intensive, rural oriented and more socially effective strategies might be more appropriate.⁸³ Being vulnerable due to a lack of abundant capital resources and technical know-how, the majority of developing countries are virtually powerless to buck the system and therefore passively accept their plight. Countries such as Tanzania which attempt to break free of the pattern of constraint encounter subtle and not so subtle forms of opposition. The investment in education represents a considerable outlay for the majority of developing countries and the returns are long-term. Thompson reminds us, that the provision of social services such as schooling will only be an effective investment in national development when the products of the schools have the opportunity to apply their education in productive activities.⁸⁴ Yet politicians, teachers and civic leaders all over the world become disturbed whenever the youths who have been trained to think for themselves question or reject many of the values which they themselves hold sacred.

But if a society is in pursuit of genuine change, and if education is to facilitate such change, then the education offered must endeavour to develop in the youths the capacity to question, to challenge and to assess information presented to them so that they can arrive at independent conclusions. In the section which follows we shall look at economic factors affecting educational change.

Economics and Educational Change

Colonial governments did not involve themselves in economic development of their societies. They provided sound administration, maintained law and order and built up the infrastructure necessary for economic development, but responsibility for such development was left in the hands of the private sector. At the same time they did not see education as a stimulant for economic development and they pursued gradualist policies in the area of education, making only limited funds available for specific vocational and technical forms of education.⁸⁵

Speaking of the African Colonies, A.R. Thompson (1981) suggests that education continued for a long time to be regarded as essentially an 'item of social consumption' separate and distinct from any considerations of economic investment. In the early post-war years, the injection of substantial amounts of financial aid into the colonies did not bring about the economic development expected. This may be due in part to the fact that the point of economic take-off of which Rostow speaks, depended on more than just a capital-intensive philosophy. For, even though the other factors of production, land and labour were in plentiful supply in the African colonies, it required a certain type of expertise to harness these resources and use them productively.⁸⁶ Once this was realised, the thinking shifted to the improvement of the quality of the available human resources, through education.

A survey of manpower needs carried out by Frederick Harbison round about 1960 helped to establish the fact that economic development hinged so closely upon

education, that educational planning could no longer be treated casually, but had to be an integral part of development planning.⁸⁷

It was seriously believed by educators and development planners in developing countries, that large investments in education would yield justifiable economic returns. The result of this type of thinking was an almost wholesale adaptation of a policy of free universal primary education and an increase in secondary and post-secondary education, brought about largely through proposals coming out of the UNESCO conference on education at Addis Ababa in 1961. It appears that little thought was given to the possible consequences of such a policy. What seems to have been lacking, was adequate analysis of costs versus benefits to see how the educated workforce would be integrated into the economy. The reality was, that within a relatively short time, unemployment among young school leavers in developing countries, grew to alarming proportions and this caused many government leaders to take a second hard look at their universal free education policies. Governments in the Caribbean were not excepted.

Any serious discussion of the development challenges facing Caribbean society during the 1980's must first dispel any uncertainties surrounding the term 'development' and establish precisely what is meant by it. Only then can one devise meaningful strategies, realistic targets and implement policies to help overcome these challenges. David Lehmann (1979) suggests that in order to determine whether or not a country is experiencing development one should look at what has been happening to poverty, unemployment and inequality in that country. If all three of these have become less

severe, then there is little doubt that that country has been experiencing a period of development. If on the other hand, one or two of these central problems have been growing worse, or if indeed all three have, then the result cannot be called development even if per capita income had increased over the period.⁸⁸

If we accept Lehman's basic premise then it follows that any Development Plan should embrace targets for reducing poverty, unemployment and inequality. Development entails as well other necessary factors like adequate levels of education, participation in the political process, and establishment of moral codes, but in underdeveloped countries where poverty and unemployment loom large, the overriding priorities are economic.

It was noted earlier that education has been accepted as one means by which a country can accelerate its rate of economic growth, but no government can claim to be 'developing' a country merely because it expands its educational system. From a long-term point of view, one necessary condition for determining development, is the reduction, of levels of poverty within a country.⁸⁹ However, there are no universally accepted guidelines for assessing standards of poverty. The United States for example, has established an average per capita income of \$750.00 as its official poverty line, but this figure varies from country to country depending upon economic conditions. Other indices of poverty commonly used are minimum nutritional standards and infant mortality rates.

Unemployment is difficult to define in non-industrial societies. Harbison holds that unemployment is associated with unbalanced economic progress. He sees it as a by-product of growth, a disease of industrialization and a consequence of the introduction of modern ideas and institutions. Its roots lie not in failure to achieve high levels of investment and economic growth but rather in progress towards achievement of these very goals. In short, modernization is a generator of unemployment.⁹⁰

Other suggested causes of unemployment include rapid population growth, the expansion of formal education and the emphasis on urban/industrial economic development.⁹¹ Thus, even though expansion in education serves to facilitate the process of development, at the same time it generates expectations among the growing population that their aspirations can be satisfied and because of the emphasis on industrial development, many countries are unable to absorb into their labour force, workers with the wrong kinds of training and skills.

This limited absorptive capacity of developing countries may be due to a number of reasons indirectly related to the education system itself. For one, if a country is producing large numbers of youths educated for traditional white-collar (clerical) jobs, while pursuing a vigorous industrial development policy, it could conceivably end up with a large number of educated un-employed youth while employees find it difficult to recruit people with the skills they need.⁹² Thompson (1981) reminds us, that education in itself does not create jobs - except for school teachers, so that a balance must be struck between the level and type of educated worker the country produces at

any given time and the demand for such workers. This introduces the idea of manpower forecasting which is, in itself a difficult consideration for a majority of developing countries. However, this subject will be addressed later.

The high cost of using educated manpower is another reason offered by Thompson, why developing countries are unable to absorb all their educated manpower in their work forces. Salaries in developing countries, particularly for educated personnel tend to bear little relation to productivity and are generally substantially higher in comparison with average per capita income, than is the case in developed countries.⁹³ The net result is that although there may be a need for highly trained personnel, many developing countries cannot afford to pay them. This highlights the need for manpower planning requirements to be augmented by realistic wages and incomes policies in developing countries.

Bigsten (1983) notes that the organized labour market in the LDC's (Less Developed Countries) is often characterized by underpriced capital and over-priced labour. This, together with an import-substitution policy has led to increasing pressure on the urban economy, with open unemployment and a swelling informal sector.⁹⁴ The traditional concept of the labour market is one where wages are determined by supply and demand. In many developing countries, a competing paradigm which Bigsten refers to as the 'job-competition model' comes into play. According to this model, people compete for jobs with given characteristics and given incomes and employment is based on educational accomplishments so that there is very little wage competition. If supply is greater than demand at a certain level, those at the end of the labour queue are relegated downwards to the next lower level of the hierarchy. However, if the

labour market follows this pattern consistently, there will be little need for expansion in education, since this system does not promote equalization.⁹⁵

Because it has been historically established that education is a right to which young people have claim,⁹⁶ and because education is still regarded as a key variable in the process of development, governments in developing countries continue to spend a substantial percentage of their budgets on education even though they acknowledge that such expenditure can never pay for itself in economic terms. Most analysts agree that the cost of providing education in developing countries is high. Several factors have been suggested. These include: (a) Low efficiency of the school system evidenced by high drop-out rates, high repetition and failure rates. This results from the poor quality of instruction and from the use of unsuitable syllabuses and curricula. This all translates in economic terms to high unit costs. (b) High cost of providing teacher's salaries. Education is a labour-intensive industry and in a majority of developing countries approximately 90 per cent of education budgets is used to pay the salaries of teachers. This will be examined further, later on in the study. However, Thompson notes that by comparison, the cost of providing a basic course of education to all children is considerably higher in Africa, than in more developed areas of the world.⁹⁷ A similar comparison can be made for the Caribbean region as well as for other developing areas. It is questionable whether or not this high level of expenditure on education is justified. Not only is it not revenue producing, but its precise contribution to economic growth cannot be measured. Thompson recognizes that the contribution which education may make to economic development will vary depending on the particular circumstances of a particular country, the stage of its development, the development strategy being pursued and the forms of education being utilized.⁹⁸

In the case of the commonwealth Caribbean, because of its peculiar mix of peoples, its differing levels of economic development, the constraints of geography and differences in ideology from country to country, educational strategy for the region as a whole must be carefully charted. However, because there exists among the islands sufficient homogeneity in aspirations some consensus can be achieved as to the type of educational strategy which in general terms, can meet the countries' objective. Some background information on Caribbean economic climate might be helpful at this point.

The economic climate of the commonwealth Caribbean is in a sense unique; within the economic union known as 'Caricom', there are twelve territories which are at different levels of economic development. This serves to frustrate efforts at economic unity and threatens to undermine the very fabric of the integration movement. Caricom conceived by the Caribbean heads of government at Chaguaramas, Trinidad, in 1973, is a regional economic integration experiment designed to (a) pool limited national savings, (b) combine skewed natural resources and (c) integrate small domestic markets in support of more intensive programmes of import substitution. The experiment was embraced enthusiastically by governments in the region in the hope that it would produce, within a short time, substantial economic benefits. The objectives of the union, broadly speaking, embraced (a) the strengthening, co-ordinating and regulating of economic and trade relations among member countries in order to promote their accelerated, harmonious and balanced development and (b) the sustained expansion and continuing integration of economic activities, the benefits of which were to be equitably distributed - taking into consideration the need to provide special opportunities for the less developed countries.⁹⁹

Within recent years, however, there has been growing awareness that the great hopes and expectations which came with the establishment of Caricom have given way to frustration and general feelings of hopelessness. Some of the factors contributing to the erosion of economic cohesion are as follows:

- (a) The theoretical foundation on which the union rests, i.e. free trade, has proven to be inadequate to the special needs and circumstances of the region.
- (b) The emergence of conflicting ideological theories within the Caribbean.
- (c) The imbalance in the levels of economic development, particularly between the L.D.C.'s and the M.D.C.'s.
- (d) The failure of the Union to provide the benefits expected of it along with its failure to divide equitably, benefits it has generated.
- (e) the tendency for Caricom countries to enter into bilateral agreements with extra-regional countries, arrangements which are contemptuous of the spirit and even the law of the Caricom agreement.
- (f) Inadequate transport facilities linking the Caricom countries.
- (g) Trinidad's oil wealth and protectionist policies being practiced by Jamaica and Guyana.

These various factors have combined to produce a relatively stagnant economy in the Caribbean characterized by (a) high levels of unemployment (b) high production costs which force governments to offer tax exemptions and subsidies to attract new industries; (c) low savings ratio - hence the dependence on external capital and (d) low and in some cases negative intra-regional trade balances. These problems of economic under-development necessitate a more radical philosophy embracing mass mobilization of human as well as non-human resources to achieve development targets. There are no easy solutions to these problems, but efforts must be made to minimize the adverse effects of inflation, unemployment and balance of payment deficits. In this regard, new approaches to education and training might be considered. Increased emphasis on skills training programmes in areas where there is a shortage of technical and professional workers might provide a good jump-off point. Such programmes should be complemented by government policies aimed at boosting productive areas of the economy for which skill training programmes were established. Increased expenditure by government in labour intensive production areas can go a long way in complementing skills training programmes.

Alternatively, government's fiscal incentives can boost private-sector employment. The solution to some of these economic problems would not be readily understood by the average lay-man. However, awareness programmes designed to raise the consciousness of the average citizen can be implemented in the hope that he will better understand the root-causes of some of these problems.

Take inflation, for example. This is probably the most difficult economic problem to understand and therefore overcome. The fact is, the main causes of Caribbean inflation are externally induced. In a world of continuously increasing prices, it is virtually impossible to find sources of cheap supply of the goods and services we require. Increasing import prices continue to fuel the inflationary spiral throughout the Caribbean. One method of counter-acting this is by the imposition of price controls on some imported commodities but this would require subsidization by government which would increase government's fiscal deficit.

Such concepts though not easily understood under ordinary circumstances, can be more easily appreciated by an informed and aware population. It is for reasons like this that expansion in the quantity and quality of education in the Leeward Islands, is vital to promote and sustain economic development. The next chapter will look at factors impacting upon planning and educational development in the Leeward Islands.

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Chapter 3 - Review of Pertinent Literature

Notes and References

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CHAPTER 4 - EDUCATION AND DEVELOPMENT PLANNING

PLANNING FOR EDUCATIONAL DEVELOPMENT IN THE LEEWARD ISLANDS - AN
OVERVIEW

Educational planning in its broadest sense embraces all levels and forms of educational activity, both formal and informal, within a country. To be effective, it must be fully integrated into the country's social and economic development plan, in order to satisfy the needs of both the individual and the nation. For educational planning to be even remotely effective, it is mandatory that a number of pre-conditions be satisfied. These include (a) a sincere conviction by political leaders, administrators and the public, that educational development is of vital public importance, and (b) that it can best be promoted through judicious planning. It is also important to realize that difficulties and limitations will not automatically disappear by merely submitting a plan to paper. Before any significant results can be expected, some basic precepts of planning must be established and adhered to. These must include an appropriate organizational framework within which to implement the plan, competent and dedicated staff, a good communications network embracing all relevant bodies - public as well as private, a wide range of reliable statistical information necessary to assess current situations and make realistic projections for future needs, appropriate machinery for reviewing as well as appraising established policies and formulating new ones.

Because most systems develop in stages, educational planning like economic development planning, cannot be expected to be comprehensive at the outset. Philip Coombs in "Some Reflections on Educational Planning in Latin America", identifies three general categories or stages of educational planning namely: (a) a pre-take-off stage in which educational planning is merely a formal exercise; (b) a take-off stage

in which an educational plan, which may be a partial plan only, begins to produce results. This stage is characterized by concrete approval of the educational plan by the relevant decision-making authorities, the provision of the necessary funds and the actual implementation of the plan - for example the construction of new schools, provision of new and better equipment and transportation facilities and (c) a series of subsequent stages characterized by progressively broader coverage of the educational system, fuller integration with economic and social planning and greater effectiveness in educational planning.¹ At all stages one is likely to encounter difficulties in the implementation of the plan. This tends to produce wasteful imbalances within the system which may be attributed directly or indirectly to improper planning.

A number of economists have stressed the inadequacies of the traditional approach to development and have emphasized, instead, the importance of the human resource factor in development planning. Their basic premise is that no growth can be achieved unless there are people trained to do the work that growth entails. Adam Curle (1970), for example, suggests that the only way out of the under-development dilemma, is through a "crash program" of development which implies a crash program of educating, training, encouraging, helping and organizing enough people to make effective contribution of a positive nature both to the economy and to the growth of a viable and purposive society.²

The eminent economist, John Kenneth Galbraith, commenting on the negative results of much of the American aid to developing countries condemns the conventional

theory which suggests that the chief lack of the countries seeking development, is capital and the technicians who would contribute towards creating this capital. Galbraith stresses the importance (equally) of at least four other factors: (a) a literate population having a highly educated minority; (b) a substantial measure of social justice; (c) a reliable apparatus of government and public administration and (d) a clear and purposeful view of what development involves.³

The importance of the development of human resources is also stressed in a number of reports by the International Bank for Reconstruction and Development. Reporting on the economy of Turkey in 1951, for example, the Bank's mission to Turkey concluded that no other type of investment, public or private is likely to produce a greater return per unit of outlay than investment in health and education.⁴

One of the most difficult tasks of educational planners in developing countries, is to develop a suitably workable strategy to make manpower training and education more development-oriented. Reforms in curricula and training programs at all levels of education is vital to ensuring that each level is inter-related and is positively related to the world of work in both the private and public sectors of the economy. But curricular reforms are not easy to implement if for no other reason than the fact that people generally resist change.

In relation to the stages of educational planning identified by Coombs, referred to earlier in the chapter, the planning process in the Leeward Islands may be slotted some where between the pre-take-off and the take-off stages, for whereas the

current situation embodies aspects of the second or take-off stage there are elements of the pre-take-off stage which are still lacking. For example, although there is evidence of formal planning committed to paper, since 1966, (in St. Kitts-Nevis) some aspects of the plan are yet to be implemented. This suggests possible disapproval of some aspects of the plan by the decision making authorities, or conversely, their failure to provide the necessary funds for plan implementation. Whatever the reason the system suffers from a number of deficiencies.

These will be given more detailed treatment in another section of the study, but it might be useful to highlight some of them here. The system still suffers from under-financing resulting in a shortage of trained and qualified teachers, inadequate classroom space, inadequate facilities, inadequate parental support and a low level of commitment to the system by a large number of teachers in all three territories.

One of the more detrimental short-comings of the system is its failure to serve the countries' development needs. Curriculum continues to be bookish and tends to be oriented towards levels which are beyond the capacity of the majority of the students. This accounts for the relatively high failure rates in school-leaving examinations. Furthermore, the curriculum in many cases is out of harmony with the life and culture of the local population and consequently does not prepare the child for life in his own community.

These deficiencies in the system might be attributed to a lack of clearly defined guide-lines as to what the school should be doing to achieve the objectives set. This might well account for discrepancies between theory and practice. It is important in any system that statements of educational objectives embrace as well a basic philosophy of what schooling should entail.

A.R. Thompson (1981) identifies three basic philosophies of schooling which may serve as guiding principles of any system. 7.

The first is a basically conservative approach which sees the main function of the school as one of reflecting the society it serves and promulgating the cultural values and norms of that society - in short serving a socialising function through informal education.

The second, Thompson sees as an innovative approach in which the school initiates, controls and directs change in the society. Products of a school based on this philosophy are likely to be innovators not imitators. Thirdly, Thompson sees the school as being an instrument of liberation which provides its students with the facility to think logically, to identify and solve problems and to initiate change without imposing constraints on the students free will by pre-determining what students should or should not do. It is such philosophy of schooling which needs to be articulated in the Leeward Islands to establish the precise methods by which educational objectives may be realised.

Brown and Hiskett (1975), suggest that despite numerous national development plans which were ostensibly well thought out, educational planning in the developing African countries has not been very successful. The reasons advanced for this bear close similarity to the weaknesses evidenced in educational planning in the Leeward Islands. These include: weakness of statistics, isolation of planners from administrators, pre-occupation with plan elegance rather than relevance, greater electoral-political than economic significance, the assumption of questionable economic theories and straightforward political considerations which economists are unable to comprehend. The absence of any clear national policy with regards to educational development, the non-involvement of teachers in the planning process all resulted in ideological conflict at the decision making level and ensured ultimate failure.⁸

It is important that these basic weaknesses be recognized and addressed by educators and development planners in the Leeward Islands. Perhaps equally important, is the need to change basic social structures to eradicate gross inequalities and eliminate unnecessary practices which serve to smother initiative and bury talent. Until the perspectives of people in the Leeward Islands can be broadened to the point where they can accept full responsibility for their development and no longer expect development to be imposed upon them by some phantom outside force, meaningful development will remain but an elusive dream - pursued but never attained. In this context Adam Curle (1970) suggests, it would not be sufficient merely to train the "right number" of engineers, social workers, agronomists and teachers, if the average worker remains barely literate.

It would not be sufficient to attract massive amounts of capital to build factories, if workers are not trained to appreciate the value of the machinery and the importance of caring for it.⁹ To achieve these basic changes in the social structure, we shall have to rely heavily on a massive program of formal and non-formal education to alter the outlook of the average citizen in the Leeward Islands. This must be accomplished in conjunction with the learning of skills if the basic structure of society is to be modified.

Elsewhere in the study, I have pointed out that in all three territories of the Leeward Islands, education is under-financed. This lack of capital to provide adequate facilities personnel and equipment to upgrade the quality of education can have devastating effects on the standard of education provided. A recent World Bank Bulletin (April 1983) highlights the detrimental effects of poor facilities in schools in developing countries^{to} caused primarily by a lack of sufficient capital to devote towards educational^{to} planning and provision of facilities.¹⁰

According to Stephen Heyneman, a senior sociologist of the Education Department of the World Bank, teachers, furniture, equipment and materials in schools in many developing countries are well below the standard considered minimum in the industrialized societies. The gap in classroom quality between high and low income countries is widening; as more and more pupils enter school in the developing countries, there are less materials available to teach them with. In the U.S. for example, one out of three elementary pupils now has access to a computer; 97% of

the elementary schools in Japan have a tape recorder; 27% have a color T.V. camera and virtually all schools in Japan have an overhead projector, a slide projector and an 8mm projector. There are 71,000 school libraries in the U.S.; there is an average of 14 titles for every student, in addition to textbooks, reference books and visual aids. In 1978, there were 10 pupils for every available textbook in the Philippines a developing area. Thus the typical pupil in the United States has 140 times the amount of reading material at his disposal for accomplishing very similar objectives - the ability to calculate, read, write and comprehend the world around him, including the world of science. Such differences in the quality of education have a significant determining effect on the outcome of education. Students in the developing countries tend to learn less than their peers in high-income countries.¹¹

According to World Bank statistics, the average score on science and reading tests for students in a developing country, is in the bottom 5% - 10% percentile of the scores of students in high and low income countries taken together. These educational deficiencies lead to significant economic handicaps, to inefficiencies in agricultural productivity, to breakdown in the maintenance of physical plants and to less effective investments in health, population, nutrition and specialized skill training.¹²

The need for the provision of adequate furniture, equipment and teaching aids cannot be over-emphasized. To illustrate the value of adequate text books in schools in developing countries, Mr. Alexander H. ter Weele, Chief, Education Projects Division, West Africa Regional office, attached to the World Bank, pointed out that after one year of using new and well-designed text books, reading, math and science scores

were raised by as much as one half of a standard deviation (in schools in the Philippines). This, he claims, is one of the highest improvements in learning ever observed in the field of education, which involved a cost increase of only 1%. He pointed out further that, these improvements were representative not of a few classrooms, but of the nation as a whole, with the most substantial gains, particularly in science and math, coming from children of the most impoverished homes and from schools in the most disadvantaged districts.¹³ However, the provision of adequate teaching aids requires capital which in many cases is diverted to satisfy other development needs, particularly in cases where educational planning is not considered a priority.

Don Adams and Robert M. Bjork (1969) suggest that any analysis of educational needs must take into consideration the cost involved or else it remains purely academic.¹⁴ In spite of this, much of the activities generally referred to as planning, pay scant attention to the financial constraints within which they must be implemented. As Adams and Bjork point out, we must be careful not to confuse plans with planning. While the plan is merely a document, planning is a continuous process which involves constant re-assessment of social and economic benefits.¹⁵

Educational planning has often been criticized for failing to anticipate and give warning about the costs of providing education and for the failure to reduce inequalities within the society. Justifiable as such criticism might be, these are variables which cannot be easily controlled or allowed for. Thompson (1981) cites three approaches to educational planning which themselves have built-in weaknesses:

(a) A 'social demand' approach which attempts to calculate training, equipment and manpower costs and requirements over a specified period, weighed against a background of specific social demands. This approach is weak, in that few countries are ever in a position to provide education to the extent demanded. (b) a 'manpower-forecasting' approach which analyzes the skilled manpower requirements of an area and calculates quantities, kinds and levels of education required to met these requirements. The limitation of this approach lies in the uncertainty of world economic conditions which makes forecasting of manpower needs a difficult process. The difficulty of predetermining the cost and feasibility of producing educated manpower also makes this approach somewhat questionable. (c) a cost/benefit analysis approach which analyzes relationships between education and income. Though not a planning technique per se, it may provide important information which may be valuable in educational planning.¹⁶ The Leeward islands like most other Caribbean territories, are characterized by a lack of adequate and relevant research data, difficulty in implementing curriculum change, difficulties experienced in launching mass adult education programs, the high cost of providing western technology, classrooms and equipment, and a general conservatism and traditionalism in values towards education. These all combine to make educational reform an extremely difficult process.

The vast body of literature on educational planning and its relationship to development reveals that the links between education and development are considerably more complex than is ordinarily assumed. By and large, educators

appear to be divided over the approach which should be taken to effect educational reforms to meet the urgent needs of development. According to Thompson (1981), the one area of agreement seems to be that up to the present time, social science theory has failed to develop a suitable theoretical framework within which to understand political and economic policies adopted by the majority of developing countries in Africa and indeed, the rest of the Third World.¹⁷ Because of the complexity of development theory, there is considerable overlapping between the various disciplines which mitigate to effect or deny development, so that problems experienced by developing countries, are usually rooted in or affected by several inter-acting variables.

What this means for educational planning in the Leeward Islands and indeed in the rest of the emerging Caribbean countries, is that strategies developed must encompass the various disciplines like agriculture, public health, community development, economics, politics and sociology. To accomplish this, considerable restructuring of the school and teaching as we presently know it, is required. Education must be made more relevant to the needs of local communities, these needs must be clearly articulated and the specific ideological approach to accomplish these needs must be spelled out. On the practical level, teacher training must be geared to producing a new breed of teachers who must be innovators, not imitators. Schools must teach not only literacy, they must teach unemployed Caribbean youths how to make a living. Non-formal education must be made more accessible and more liberal.

Because Caribbean society is still undergoing a process of evolution, strategies and policies developed must be frequently appraised and revised when necessary to achieve established objectives. Adequate communication and coordination is vital in the implementation of plans, and it must be borne in mind, that adequate and reliable data is crucial to effective planning.¹⁸ A look at the planning process in education in the Leeward Islands reveals the following:

St. Kitts-Nevis

Evidence of serious planning for educational development in St. Kitts-Nevis dates back to 1966 when the Labour Government undertook a full-scale re-appraisal and re-organization of the education system of the territory. The need to articulate the philosophical framework of education was recognized and the government formulated policies for education based on the principles of democratic socialism and established a system to implement these policies based on the principle of social justice.

The objectives of the policy were outlined in a booklet entitled "St. Christopher Nevis Anguilla Education Policy" published in August, 1966. The main objectives were as follows:

- a) To introduce a new system of secondary education which would seek to provide equality of opportunity.
- b) To revise the curriculum of all schools to provide a broader and more relevant base of education for all pupils irrespective of their social and intellectual levels.

- c) To raise the standard of work in the primary schools and to relieve the primary stage of education from the pressures and distortions caused by its subordination to the demands of the grammar schools,
- d) To establish proper programs in adult education and vocational education suited to the needs, particularly to the employment needs of our country.

In the 1966 policy statement, the government committed itself to the establishment of a new system of secondary education through a network of comprehensive high schools. Radical reform of secondary education was seen to be necessary to accommodate the principle of social justice which the new policy sought to achieve. The former secondary system or Grammar School System as it was known in St. Kitts-Nevis concentrated its attention and resources on the "bright" pupils from middle-class backgrounds to the detriment of the average and below-average pupils who needed greater encouragement and to whom adequate facilities and opportunities were unavailable. The system discriminated against pupils of working-class families from a less favourable cultural environment through the use of grammar school entrance tests which were based predominantly on middle-class norms.

The new Comprehensive System saw the establishment of a new network of schools in St. Kitts. A new high school was established in Sandy Point. In Basseterre the capital, the merger of the two Grammar Schools - the Girls' High School and the St. Kitts-Nevis Grammar School (for boys) into a single Basseterre High School was

accomplished. The Basseterre Senior School was upgraded and expanded into the Basseterre Junior High School and a new high school was established in Cayon. In Nevis, the Charlestown Secondary School which accommodated both a secondary and a senior wing, was expanded and upgraded into a comprehensive high school and the Gingerland Senior School was expanded and upgraded into the Gingerland High School.

Even though the emphasis in the new comprehensive system was on secondary education there was however, some re-orientation geared to the primary schools as well. Prior to the re-organization most of the primary school curriculum was geared towards satisfying the grammar school entrance requirements. The success/failure rating of primary schools was based on their pupils' performance in the grammar school entrance exam and in the Standard VII exam. The new system has relieved the primary schools of the headache of external examinations and different criteria have been established to keep track of performance and to judge standards of achievement. Upon reaching the top form of the elementary schools, pupils automatically qualify for entrance to a higher level of education be it Junior High or High School. The High Schools, under the revised system, continue to write external examinations set by the University of Cambridge, England, and by a regional body - the Caribbean Examinations Council.

The St. Kitts-Nevis Government has tabled in its current 5-year development plan, proposals to spend an estimated 12.8 million dollars on major capital projects over the plan period. Three million and forty-nine thousand dollars will be spent on the construction of new primary schools in St. Kitts-Nevis. Expenditure for construction and renovation of day care centres over the plan period is estimated to cost 1.25 million dollars while extension to existing secondary schools is ear-marked to cost 2.8

million over the same period. For the construction of two new Secondary schools, government intends to spend 4 million dollars. In the area of Tertiary education, government is giving due consideration to the establishment of a College of Further Education to incorporate the existing Technical College, Teacher's Training College, School of nursing and facilities to cater as well to first year University programmes and Continuing Education. For this facility government has earmarked 1.7 million dollars.

No doubt, much thought and discussion has centered around the justification for this project, however, the feasibility of it at this time remains questionable. Higher education demands high standards dependent largely on the quality of available teaching staff. Presently, staff qualifications in the existing levels of education is low. The cost of importing outside professionals would be astronomical. The possibility of achieving and maintaining high standards given these constraints is at best questionable. At each progressive level of education, the particular requirements for resources both human and otherwise, become more costly. Tertiary education demands high financial resources which are already scarce. It is important therefore, that serious consideration be given to the costs involved in setting up and maintaining tertiary education programmes before they are implemented, not after.

Careful evaluation should be given as well to the quantity and quality of training already provided by existing tertiary institutions, to establish the need for the creation of another such institution. The fact is that areas of instruction which this

institution will serve are already being serviced in the territory so that although this new thrust might be seen as consolidation of the existing services, in actuality, it might be duplication of these services. Because the existing institutions to be accommodated under the common aegis represent different levels and areas of training, the idea of their amalgamation under a common professional jurisdiction should be carefully and objectively assessed.

Areas of responsibility between the various levels and disciplines will have to be clearly defined. Coordination between specialists will have to be carefully negotiated. Even then, the system is likely to be affected by contradictions in aspirations and by eventual subordination. The proposal to offer first year university programmes is incompatible with the objectives of our regional institution of higher learning - The University of the West Indies (which is supported financially by all the local governments in the Leewards). This objective might be better facilitated through the existing Extramural Departments of UWI which operate in all three territories.

With scarce capital resources, educational planners in the Leewards must strive to avoid duplication of facilities, keeping in mind always, that buildings do not constitute learning. We can construct the most architecturally aesthetic buildings, but unless they are adequately equipped; unless the students are provided with the correct motivation and have the will to learn, then our efforts would be of little

consequence. At the same time, if the quality of the education we offer our youths does not contribute to the quality of life in the Leeward Islands or equip them to take an active role in the development process, then we are merely throwing good money after bad in our current educational expansion projects.

Antigua

In the case of Antigua, the most serious and persistent inadequacy in the education system over the last decade is the absence of any comprehensive educational plan, systematically developed and implemented to meet its development needs.

Four major changes in secondary education planned and implemented during the seventies were not conceived or developed in any common conceptual context and were not seen as being supportive of each other. These changes entailed the following: (a) The partial abolition of the Primary School Examination; (b) the development and implementation of a new junior secondary curriculum; (c) the gradual replacement of senior primary grade by the junior secondary cycle and (d) the creation of comprehensive secondary schools catering to pupils of varying levels and abilities and for various types of learning. Because the pre-conditions for their success were not clearly defined the changes failed to bring the expected balance into the education system.

Antigua is the only territory in the Leeward Islands to have established a State College to date. The maintenance of its programs however could be an extremely

costly proposition. Higher education implies higher academic standards. The achievement of high standards in higher education will require well-qualified staff, good working conditions for staff and students, and programs of high educational quality, all of which require considerable capital resources.

It is perhaps ill-advised to draw premature conclusions at this time about the creation of such a facility, but the challenge presented to the country arising out of this decision can only be met through consistent determination. The college's heavy dependence on expatriate staff and the high percentage of staff vacancies especially in the technical programs are indications of poor planning. If the staffing situation is not improved within a relatively short time the technical programs are in danger of collapse.

There is urgent need for coordinated planning in the area of Adult Education for even though several organizations exist which all offer adult education courses of one type or another there seems to be little coordination of activities in this area. The writer has found no evidence of any clearly defined policy by the Education Ministry, in regards to adult education upon which to base future expansion strategies. In the absence of clear policy guide-lines it is difficult to identify specific areas for development but a piece-meal approach to non-formal and adult education is both costly and counter-productive.

Planned innovations in the education system of Antigua will require a well-equipped, vibrant and coordinated planning unit, capable of identifying well in advance factors like enrolment fluctuations and indices of Quantitative and Qualitative developments.

Montserrat

Montserrat's education policy is ostensibly, based on principles of equality of opportunity, social justice and maximum development of human resources. Although free Primary and Secondary education is offered to all children between the ages of five and nineteen the island's education and training system is not producing enough people with the appropriate skills to contribute to the extent required, for accelerated economic development, to take place. The need for restructuring of the education system in several areas is evident and even though general policy guidelines have been established for such a restructuring, much of this "planning" is yet to be implemented.

Primary Education: This is compulsory for children between the ages of 5 and 12. The principal weakness is the lack of adequately trained teachers in early childhood education to ensure that children are sufficiently stimulated to develop an interest in learning and to provide adequately for their physical and emotional development.

Junior Secondary Education: The system caters to children between the ages of 12 and 15 years, and age is the only criterion for admission. Students who qualify for further academic study go on to the Montserrat Secondary School after three years. For the others formal education terminates here and they are let loose on the job market with little or no marketable skills since the curriculum does not prepare them adequately for the world of work. This is one area that requires urgent attention.

Secondary Education: Montserrat's only Secondary School provides academic education for children between 11 and 19 years of age through a selective (examination) process. Generally, the output is still less than desirable. Government's national policy embraces improvement in teacher training programmes so that teachers at all levels may be trained as early as possible. This commendable suggestion should be vigorously pursued. The establishment of a teacher training facility on the island should facilitate the program. Teacher training is one area which should be given highest priority in the restructuring of the system, bearing in mind that the quality of the teachers determines the quality of the education the system produces.

Many of the current educational policies in the Leeward Islands are directly linked with the voluntary acceptance of colonial models and concepts by indigenous policy makers. Alternatives to Western-style education, more suited to the local needs of the Caribbean need to be sought or developed. Planning for educational change should embrace on-going and exhaustive research into the root causes of post-colonial educational problems in the emerging Caribbean. Such research should embrace areas like the underlying orientations and goals of Caribbean education; the policy-making process, the impact of specific educational aid projects, the impact of foreign periodicals, the foreign press, radio and television. Hopefully, research of this nature will provide some answers to the perplexing questions with which policy makers in the Leeward Islands are faced regarding educational change.

Chapter 4 - Education and Development Planning

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CHAPTER V

RECENT TRENDS IN EDUCATION IN THE LEEWARD ISLANDS

Introduction

The importance of education in the process of development and nation-building cannot be over-emphasized. It is through education that the knowledge, skills, values, attitudes necessary for a people to become constructively involved in the process of building their country, are acquired.

If students pass through an educational system and emerge with poor attitudes to work, with feelings of alienation and with no real commitment to their country and its development, then that system cannot be considered relevant or effective. If the values, skills and attitudes inculcated are unsuited to national development, then the system which produces those values, skills and attitudes is poor and inappropriate regardless of what high academic achievement it might produce.

The crucial questions to be examined therefore in relation to education systems in the Leeward Islands are as follows:

- a) Are the education systems of the Leeward Islands comprehensive enough for the job of providing our youths with appropriate knowledge and equipping them with the correct skills, values and attitudes necessary for nation building?
- b) Does the system of evaluation - the GCE 'O' and 'A' level and the CXC examinations address specific Caribbean problems in more than a superficial way with a view to generating bona fide 'Caribbean' solutions?

- c) If the educational systems are structured in such a way that the courses offered do not make the students they are directed at, aware of the problems confronting them and do not assist them in generating endogenous solutions, then how will these problems be solved?

Admittedly, education by itself cannot guarantee development, but by the same token, no development can be achieved without education. The two concepts are complementary. A nation's education system has the inherent capacity to either retard or promote the process of development, as closer scrutiny of the systems in the Leeward Islands would bear out.

Quantitative Developments:

It is questionable whether governments in the Leeward Islands can afford to pay for education on the scale which is necessary, if they are to break the chain of dependency which binds their people to developed societies like Britain and the United States.

Currently, governments in all three territories are underfinancing education, particularly in the key areas of technical education and teacher training. For example, in 1981 out of estimated recurrent expenditure of \$85.9 million, Antigua allocated only 11 percent of its budget or \$9.7 million to education. (See Basic Background Data).

This is broken down as follows:

Personal Emoluments	\$ 8,086,770	83%
Grants and Contributions	826,284	8%
Other charges for Educational Expenditures	404,560	5%
Educational Expenditures	<u>378,605</u>	<u>4%</u>
Total	<u>\$ 9,796,219</u>	<u>100%</u>

Note: Education falls under the general umbrella of the Ministry of Education, Culture and Youth Affairs. Of the 1981 budget the ministry was allocated a total of \$10.6 million or 12.4 per cent. To determine actual expenditure on education, "Personal Emoluments" and "other charges" expenditures in respect of Community Development, Public Libraries, St. John's Training School and the Sports Division have been deducted.

The resulting expenditure on education, is by regional and international standards extremely low. Of the three territories looked at in this study, Antigua spends a smaller percentage of its budget, on education and training than the other two territories. A considerable increase in the island's investment in education is required if the system is to provide the required tools for nation-building. In comparison, out of a total 1981 estimated recurrent expenditure budget of \$46.3 million, St. Kitts-Nevis allocated \$7.9 million or 14 per cent to expenditure for education. (See Basic Background Data).

This is broken down by main objective as follows:

	St. Kitts	Nevis	Total	Percentage
Personal Emoluments	4,638,052	1,374,713	6,012,765	90.1
Other Charges	565,770	88,501	654,271	9.8
Non-Recurrent	<u>9,000</u>	<u>-</u>	<u>9,000</u>	<u>.1</u>
	<u>5,212,822</u>	<u>1,463,214</u>	<u>6,676,036</u>	100

Note: Of the 1981 budget, government allocated \$6.7 million for educational recurrent expenditure. An additional \$1.2 million was allocated for expenditure on the Ministry itself.

In 1979, out of a total recurrent expenditure budget of \$9,139,900, the Montserrat government spent \$1,096,792 or 12 per cent on education.

The break-down by main objective is as follows:

Personal Emoluments	\$ 999,100	91%
Other charges	<u>97,692</u>	9%
Total.	<u>\$ 1,096,792</u>	100%

By international standards the level of expenditure in all three territories is low and needs to be improved. However, this problem of low expenditure on education in the region although not new is compounded by the distortion in the pattern of disbursement of the education budget.

St. Kitts-Nevis

In 1978 for example, according to government statistics, actual recurrent expenditure on education in St. Kitts-Nevis was \$5,117,673. Of this amount, \$4,915,103 was spent on salaries of teachers and other personal emoluments. This represents 96 per cent of the education budget. Figures for 1979 were equally as alarming. Out of total (actual) recurrent expenditure of \$5,969,111, a total of \$5,721,103 or 95 per cent of the total was spent on teachers' salaries and other personal emoluments. This left a pitifully small amount to be spent on vital school supplies, equipment, text books and other essentials.

Excluding expenditure for personal emoluments and capital expenditure a further breakdown, based on government statistics for the period reveals the following pattern of expenditure on education in St. Kitts.

In 1978 expenditure on primary education was \$89,576; enrolment at the primary level was 6,509 in both government and private schools. Thus expenditure per pupil for primary education was \$13.8 per annum.

In Nevis, the expenditure was noticeably lower for the same period. Total expenditure on primary education in 1978 was \$11,912, enrolment at the primary level was 2,159 (including private schools) giving a per annum figure of \$5.5 per pupil. Thus on primary education alone St. Kitts spent two and one half times as much on each of its pupils as Nevis did. The situation was somewhat different on Secondary education. St. Kitts in 1978 spent a total of \$43,768 on Secondary education for 3,823 pupils or a total cost of \$11.4 per pupil per annum. Nevis on the other hand spent \$14,064 on secondary education for 1,139 pupils, or a total expenditure per pupil of \$12.3 per annum. It must be borne in mind that the above expenditure figures do not include capital expenditure or personal emoluments. The picture is equally as gloomy in the areas of teacher training and technical education. The following breakdown excludes capital expenditure and personal emoluments. Figures are quoted jointly for St. Kitts and Nevis. (Refer: Basic Background Data).

	Expenditure	Enrollment	Exp. per Student
1978 Teacher Education	\$10,983	70	\$ 157.00
1979 Teacher Education	11,674	97	120.00
1978 Technical College	67,236	89	755.00
1979 Technical College	68,800	151	456.00

Figures quoted earlier for 1981 indicate a similar pattern of expenditure in St. Kitts-Nevis.

The foregoing figures reveal a significant distortion in government expenditure on education in St. Kitts-Nevis. Education is grossly under-funded - an average of 14 per cent per annum over the period examined. Of this amount some 93 to 95 per cent is spent on personal emoluments (teachers' salaries, allowances, etc.) This leaves a mere 5 to 7 per cent of the expenditure budget for the provision of vital equipment, supplies and other resources required to serve the student population effectively and to facilitate educational development. This level of under-financing in education, if allowed to continue, can only serve to retard further, the process of development in St. Kitts-Nevis.

Turning to the question of student enrolment, the record in St. Kitts-Nevis is favourable. Conditioned by a general population decline from 1970 onwards, overall enrolment has declined steadily during the 1970/80 decade. This has affected the Primary Schools mainly (Grades 1-7). (See Appendix II). Total enrolment for the 1978/79 school year was 13,580 pupils in all levels of the system, Primary and Secondary - in both government and private schools. Compared with the other two territories in the Leewards and the rest of the Caribbean area, this represents an

exceptionally high percentage of school age children. According to Ministry of Education statistics, St. Kitts-Nevis in fact has a gross enrolment ratio of 100 per cent for the 6-15 age group, equal participation of boys and girls throughout the system and a comparable enrolment ratio in urban as in rural areas. Primary and post-primary enrolment levels are similar and the secondary enrolment rate is one of the highest in the Caribbean. In spite of this the system's performance continues to be generally poor.

Montserrat:

In Montserrat, the pattern of low expenditure in education repeats itself. In 1979, the Montserrat government spent 91 per cent of its education budget on teachers salaries and other personal emoluments. The remaining 9 percent was spent on other aspects of education for Primary, Junior Secondary, Secondary and Technical education. This totalled a mere \$97,692. Of this amount:

Primary education	received 6% or \$ 3.3 per pupil
Secondary education (including Junior Secondary and Sixth Form).	received 63% or \$74.6 per pupil
Technical education	received 30% or \$500. per pupil

Given the inflationary trends in the cost of textbooks and other school supplies these unit costs are grossly inadequate. Consequently, Government must accord greater priority to expenditure in education, increase its allocation for "Other Charges" and improve the quality of its teaching staff at all levels by providing more training.

During the 1970/80 decade, primary school enrolment in Montserrat has followed the island's overall population fluctuations resulting from migration and from the effects of family planning. In 1971/72 Primary School enrolment was 2,970. This declined dramatically to 1,994 in 1980/81. Secondary enrolment on the other hand, has increased consistently from 381 students in 1972/73 to 921 in 1980/81. (Ref. Appendix xxiv). Because of the unavailability of 1980 census figures reliable comparisons cannot be established between single age groups. However, girls' enrolment at the Primary level has been as high as boys over the 1970/80 decade and even higher at the Post-Primary level.

In general, total enrolment has declined over the decade 1970/80 going from 3,234 students in 1972/73 to 2,915 in 1980/81. Secondary enrolment increased from 12 per cent to 32 per cent over the same period.

Antigua/Barbuda:

The pattern of recurring under-expenditure on school supplies, text books and educational aids in Antigua has reached alarming proportions. Of its 1981 Budget for example, a pitifully meagre allocation of \$404,560 or 5% of the education budget was spent on school supplies, text books and other educational aids.

At the same time, the allocation for "Grants and Contributions" amounted to \$826,284 or 8% of the education budget. According to the 1981 government

estimates, \$548,735 or 66 per cent of the total Grants Vote represented grants and contributions to the University of the West Indies (UWI). Whether or not such a high percentage of the education budget should be allocated for higher education is an open question. However, when looked at in the context of its considerable excess over other educational expenditure at all other levels of the system combined, then the justification for this high level of expenditure for higher education becomes doubtful.

Antigua's school enrolment figures reflect the overall population trends. Between 1970/71 and 1977/78 primary school enrolment decreased by 8 per cent while secondary enrolment increased by over 50 per cent. Over the same period, overall enrolment increased by only 5 per cent. Total enrolment in 1977/78 was approximately 17,000 pupils. (Ref. Appendix xviii). Compared with other Caribbean territories, Antigua's quantitative performance is good. The gross enrolment ratio for the 5-16 age group is around 100 per cent and there is similar participation for girls as boys throughout the system.

Qualitative Developments

Despite generally favourable trends in the quantity of education being offered in the schools of the Leeward Islands, education authorities continue to be frustrated over the low level of productivity and relatively poor quality of the human resources generated by the system. Any efforts to prepare people for genuine participation in Caribbean development must begin by re-moulding the social structures and institutions of Caribbean society through education and training. Governments in the Leeward Islands have recognized the need to improve the quality of the education offered in the islands' schools and have taken some concrete steps in this direction, but there is need for more concentrated efforts in this area.

St. Kitts-Nevis


Although St. Kitts-Nevis has one of the highest secondary enrolment rates in the region, the qualitative performance of the system remains unsatisfactory. This may be attributed partly to the failure to allocate sufficient capital to provide suitable facilities, equipment and personnel to upgrade the quality of education offered, and partly to the need for re-orientation in the curriculum.

There are indications, however, that the government of St. Kitts-Nevis has recognized the importance of instilling the right attitudes and values in the child even before he is introduced to the formal education system. In this regard,

government has established a number of day-care centres and continues to encourage the setting up of such centres by private-sector interests to provide for the care of pre-school children while their mothers are at work. In conjunction with the facilities provided, government is engaged in the development of an early childhood education program to satisfy the needs of preschoolers. This is an encouraging step and should be continued. Education for Caribbean youth must be child-centred. The creative growth of children must be facilitated in settings which lend themselves to this. Children must be given opportunity to explore places and things and should not be unduly restrained and supervised.

Another sign of positive development is the greater flexibility which has been introduced into the system. The former emphasis on academic education, and certification is gradually giving way to a more flexible skills-oriented education programme. The abolition of the Eleven-Plus examination for example, has relieved Primary schools of the pressure of preparing students for this examination. Students are no longer evaluated solely on their performance in this examination but by cumulative assessment by headmasters and by test results over a period.

At the Secondary level the introduction of courses leading to the CXC examination is seen as an attempt to adapt education to the culture and needs of the region but some aspects of the CXC programme are difficult to administer from a logistics and cost effectiveness perspective. However, it is generally considered to be an improvement on the GCE programme which is gradually being phased out.



At the post-secondary level, government is committed to the establishment of a College of Further Education which, it is believed, will be better suited to the training needs, expectations and financial possibilities of the nation's students than the present regional programme offered by the University of the West Indies.

The justification offered by government for this innovation, is the present low standard of tertiary education due to poor facilities and inefficient use of teaching resources. It is felt that a single institution would better utilize facilities and staff. The project consists of upgrading existing facilities to establish a single college to cater to the training needs of nurses, paramedics, technicians; 1st and 2nd year University education and Continuing Education. The project is to be funded externally, provided a Funding Agency can be found; such an institution should embrace as well, the area of teacher training which is in dire need of improvement.

Teacher training continues to be unsatisfactory for the following reasons:

- (a) the education level of most of the candidates is low
- (b) the two to three week induction course is too short to be of any professional value and
- (c) The selection process does not Pre-determine the interest/orientation of teacher trainees.

In addition, the system is burdened with other serious limitations:

- (a) Many primary school teachers still enter and remain in the system without training.
- (b) Many secondary school teachers are engaged in areas for which they received no specialized training.
- (c) The system is still largely oriented towards preparation for the GCE and CXC examinations. Emphasis is still too heavily placed on certification. Too little attention is paid to preparing students for the work-place.
- (d) Text-books, reference-books, teaching aids and teaching guides are neither provided nor produced.

The need for developing a professional attitude towards teaching is urgent. Admissions requirements into the service should be made more rigid and restrictive to ensure some measure of commitment. Many teachers still regard the profession as just another stop-gap job. This attitude does not foster professionalism. Andrew C. Preston makes the point that just as we seek a qualified attorney when in need of legal advice, we should want properly prepared educators when we give them our children to be trained.¹

The pattern of recruitment into the education system which allows teachers to practice without preparation results in a large percentage of pupils being taught by untrained teachers. Statistics for 1978/79 reveal that approximately 56 percent of Primary school teachers are untrained; 54 percent are under 25 years of age; 35 percent have three 'O' level passes or less, 34 percent have less than three years of professional experience. (See Appendix IV).

The picture gets murkier when we look at training for Secondary School teachers. Training for Secondary School teachers is carried out at the Cave Hill School of Education, Barbados. The cost of this training is prohibitive and therefore training at this level is virtually non-existent. 1978/79 statistics indicate that only 20 percent of Secondary School pupils were taught by teachers who had specialized training in their area of teaching. The remaining 80 percent were taught by primary school teachers, half of whom were not trained.

This, understandably, has contributed to the high failure rate in the GCE 'O' level exams. At a time when secondary enrollment is growing at a faster pace than primary and all-age enrollment, and when the CXC syllabus is considered to be more difficult than the GCE for both students and teachers, one wonders how this decline in secondary teacher training can be allowed to continue, if the education system is supposed to work the miracles it is intended to.

The system does not offer any structural alternative for students who for one reason or another do not continue on to GCE or CXC examination level, nor does it make any allowances for those students who write these examinations without success.

According to education department statistics, approximately 500-700 students complete 10-11 years of compulsory education annually in St. Kitts-Nevis. Very few are absorbed into the labour force. The rest are abandoned educationally except for those who emigrate and seek out higher education opportunities abroad.

Another area of concern is the recent trend towards disruptive and counter-productive practices viz-a-viz teacher transfers in and out of the system, throughout the Leeward islands. A.R. Thompson (1981) suggests that the majority of African countries which indulged in the displacement of their most qualified and best trained teachers, paid a high price for their short-sighted practices. According to Thompson, a massive increase in the demand for education came with Independence which existing structures could not accommodate. This gave rise, unfortunately, to a mass intake of unqualified teachers and trainers of teachers which in turn destroyed for some time the credibility of the teaching profession. This situation which was Africa-wide, was further complicated when Independence created a demand for educated African personnel to fill the jobs vacated by Europeans. Thus, the few educated and trained professional teachers were drawn into the civil service, and they took with them any hope of improving the profession from within its own ranks.²

In St. Kitts-Nevis a parallel situation developing in the Nevis branch of the education system requires urgent remedial action before irreparable damage is effected. Following upon the attainment of Independent Status, the Nevis Island Council created a number of Senior Administrative positions to serve the Nevis Island administration. To fill these positions, the majority of trained teachers, specialist teachers and experienced Head-teachers have been pulled out of the system and assigned to administrative positions. In the majority of cases, these teachers have little administrative experience. It is my opinion, that this scandalous rape of the education system can only serve to undermine an already weak establishment. The time and money required to train such personnel in administrative procedures could be spent to better advantage on training for senior personnel already employed in the Civil Service.

Montserrat

Montserrat is well serviced with a good network of schools - 16 Primary, 2 Junior Secondary and 1 Secondary. The enrolment ratio is high and the student/teacher ratio has been comfortably low over the last decade. At the Secondary level, the quality of the teaching staff is considered high - approximately 80 per cent of the staff are graduates and 50 per cent of them are trained. (See Appendix XXV).

In spite of this, the education system in Montserrat is in dire need of improvement to bring it in harmony with the needs of the country. There seems to be a lack of a comprehensive plan for the development of the system generally. For example, the

establishment of two Junior Secondary schools, in itself a commendable improvement of the overall system, has not been complemented with adequate teaching aids, text and reference books and the other tools necessary to achieve the objectives perceived when the schools were established.

The level of achievement in the primary schools is low. This may be attributed partly to the archaic teaching methods still being employed based largely on rote learning, and partly to the use of a curriculum unsuited to the existing socio-cultural conditions of the country. The absence of adequate text books, teachers' guides, and teaching aids only serves to further aggravate the problematic situation.

The present system of automatic promotion should be balanced by closer observation of the students to detect signs of inappropriate learning and where these are detected, competent and sustained assistance should be available. Teaching aids such as teachers' guides, reference and text books need to be provided especially, since almost 50 per cent of Primary School teachers are untrained and many of them have not successfully completed secondary education and have been assigned to teach without previous training. Most of these teachers usually end up teaching students in the lower, more crucial stages of the system. These are usually the most difficult grades to teach.

To help correct this, insistence on pre-training as a requirement for class-room teaching should be implemented. One innovation in this direction is the introduction of the Modified In-Service Training (MIST) programme a 1-year para-professional

teacher preparation programme which permits entry into teachers training colleges to pupils/teachers with 3-0 level passes or more. This could be expanded into a two-year pre-service programme. Curriculum content should be re-assessed to provide those students 15 years old and over who do not qualify for continued secondary education, with the necessary tools for the market-place (the world of work). Practical work-related subjects need to be taught to fill this need.

In general changes to the system should be carefully thought out by trained specialists in the area of educational planning to avoid costly mistakes which Montserrat can ill afford. More specifically, text and reference books need to be provided at all levels. Curriculum changes need to be complimented to introduce practical, work-related subjects catering to the needs of the large number of students who do not complete secondary education. Different systems of evaluation need to be introduced to accommodate Montserrat's different levels of education - primary, junior secondary and secondary.

Antigua

Like the other two territories under study, Antigua's qualitative performance continues to be unsatisfactory. Expenditure on education is low, failure rates continue to be high and a large percentage of students leave the system annually completely disoriented. Much of the content of the educational systems in the Leeward Islands continues to be alienating with text books, curriculum and reference points from outside of the region. Although there has been quantitative expansion to

cater to more people, the system has not been transformed to any effective extent to improve the qualitative capacity of the people it produces. One of the ironies of our education system is that in the process of training people to be of service to their communities, it alienates them from the people to be served. In this sense it is elitist in character.

The education system of any society must be geared to the goals of that society. Since development implies positive social change then it follows that the goals of our society must change to accommodate development and consequently our education programmes must change accordingly. Nyerere sums up the situation in most developing areas correctly when he notes that the current system emphasizes and encourages an individualistic and materialistic orientation, rather than a cooperative one with the possession of individual material wealth being the major criterion of social merit and worth. It induces attitudes of human inequality and in practice underscores the domination of the weak by the strong especially in the economic field.³ If Caribbean society is to promote equality, social justice, respect for the individual and community-spiritedness, it would have to have an education system suited to those goals.

Technical Education and Vocational Training

The education systems throughout the Leeward Islands are geared primarily towards high academic achievement. Historically, however, an estimated 50 to 60 per cent of students in schools throughout the area do not attain high levels of academic achievement. It is important therefore, that suitable options be provided so that these students can develop their abilities in productive pursuits. Perpetuation of the present system of education could only produce more alienated youth. Lacking the basic skills required in the work-place, they encounter difficulty finding suitable jobs; untrained in entrepreneurial skills they do not create employment for themselves - rather they drift aimlessly waiting to be employed. Such a system of education can correctly be described as being counter-productive.

To provide the type of education to meet the countries' critical socio-economic needs fundamental changes in the islands' education systems need to be effected. Such changes should place greater emphasis on technical education and vocational training.

St. Kitts-Nevis

A technical college located in St. Kitts makes valiant attempts to cater to the technical needs of the nation. It has become obvious within recent years, however, that this facility needs to be expanded to cater to a greater number of students as well as to a wider range of subjects to meet the nation's development needs. For example, in the mechanical and electrical engineering areas, training in radio and television repair, small appliance repair and business machines repair could provide

the necessary incentive for young adults to launch business ventures of their own rather than wait to be employed. The introduction of small business management skills and accounting practices could also facilitate the self-employment thrust. However, in order to introduce the necessary courses for which obvious need exists, the provision of adequate facilities is a pre-requisite.

Construction of an adequate number of workshops would require considerable financial outlay not only for the physical building, but for adequate equipment, tools and trained personnel to administer the programme. In this context it might be advisable for all the territories of the Leeward Islands, to consider providing such facilities on a joint-venture basis. This approach could reduce significantly the initial financial outlay of each country; standardize training throughout the region and improve the quality of occupational training within each country. This study recognizes however, that considerable planning and co-ordination would be necessary to make such a venture successful.

Antigua

Like St. Kitts-Nevis, technical and vocational training is offered in Antigua's education system on a piece-meal basis and many of the same problem areas exist. These may be categorized as follows:

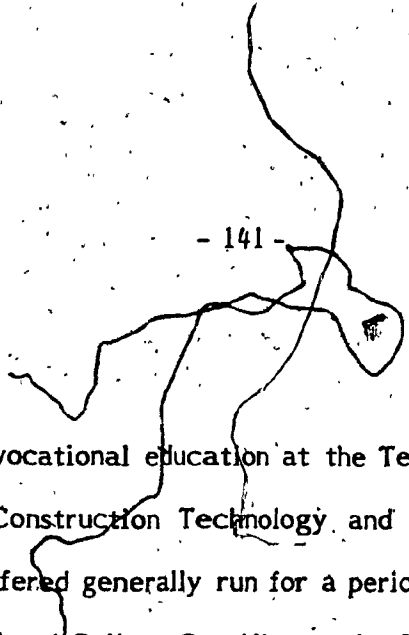
- A scarcity of qualified technical teachers and trainers in all schools.
- Insufficient and in some cases in-appropriate practical skills offered to students.

- No concerted plan for the provision of the skills required by the country to facilitate development.
- Lack of co-ordination between the existing technical institutions and the work-place.
- Lack of career-guidance expertise.
- Inadequate facilities and inappropriate curricula for the development of industrial/technical skills.

In light of the above, it is mandatory that efforts be made to improve both the number of training facilities and the quality of the training staff. Emphasis should be placed on the development of manual skills rather than on theoretical knowledge. To bring about the level of improvement needed in the area of technical education and vocational training, the advice of experts from outside of the area would be required to offer assistance in areas like planning and organizing vocational training; instructor training, development of training aids, setting up working groups, seminars and workshops, development of appropriate (job-related) curricula and the provision of advisory services to local governments.

Hopefully, after an initial period of expatriate assistance, a sufficient number of locally trained persons would be available to continue and to improve upon the systems which will be established.

Montserrat



Montserrat offers free vocational education at the Technical College in Commerce and Business Studies, Construction Technology and in electrical and mechanical engineering. Courses offered generally run for a period of two years and successful students are awarded the local College Certificate, the Craft and Trade Certificate of City and Guilds of London, England, or the Royal Society of Arts Certificate. The staff is comprised of trained personnel, the majority of whom are expatriates on two-year contracts. Until sufficient local personnel can be trained as instructors, this trend is likely to continue. Graduates of the college have generally been able to find employment but the quality of the skills they offer the job market has been generally low. Like the two other territories under study, technical education and vocational training in Montserrat has traditionally experienced a number of problems and this serves to reduce the potential impact that this type of education can make on the island's development thrust.

Although the existing buildings are fairly well constructed and maintained, there is need for more spacious facilities to accommodate a greater number of students, as well as greater variety in the courses offered. Machinery and equipment is poorly maintained and there is a general shortage of hand-tools, typewriters and other teaching aids vital to the success of the programme.

Although the curricula are based largely on the requirements of the City and Guilds of London, courses are prepared locally by the college and course material is oriented favourably towards practical work. However, the quality of the practical skills

achieved, does not always measure up to industrial needs. Because of this, there is need for much closer relationships between governmental, industrial and commercial organizations to ensure the development of the skills needed by the country, to sustain economic growth.

Throughout the Leeward islands there exists a shortage of technical and professional (skilled) workers and a surplus of unskilled workers. Skills training programmes i.e. technical education and industrial/vocational training can contribute effectively to reducing the unemployment and under-employment problems of the area. However, such programmes must be complemented by government policy measures aimed at boosting productive areas of the economy for which skill acquisition programmes are established. Technical Education and Vocational Training in the Leeward Islands should be energetically pursued in such a way that students acquire not only the skills and knowledge required to secure gainful employment but develop as well the facility to become technical innovators, to improve their occupational efficiency and to become skilfull business managers. This type of expertise which is vital to development, is currently lacking in a large percentage of youths in the Leeward Islands.

Agricultural Education and Training

The relative importance of industry as opposed to agriculture in the process of development, has been a much debated subject. The often touted idea that industrialization entails a neglect of agriculture is unfounded. Indeed, historical evidence suggests that in most developing countries successful industrialization has been supported by sustained agricultural growth. This is not surprising in view of the fact that in a large majority of developing countries, more people earn their livelihood from agriculture than from any other major sector of the economy. A vibrant and productive agricultural sector stimulates domestic demand for industrial goods and earns foreign exchange to finance exports of capital and intermediate goods for industrialization, and facilitates the development of labour-intensive industrial units.

Because agriculture plays a primary role in the life of Caribbean peoples, education and training in food and agriculture should be accorded the required priority in the education systems of emerging Caribbean nations. To be effective and efficient, training in Agriculture should essentially be practical at all levels and should be provided at the lowest possible cost per capita: At the primary level (age 6-12) the school should begin its agricultural orientation of children by initiating 'fun' projects to beautify school premises and teach the basics of fruit farming and vegetable production. This training should be reinforced by youth organizations like the 4-H clubs, Cubs and Scouts, Brownies and Girl Guides to help support the momentum.

A correct orientation towards agriculture can help erode many of the misconceptions which presently obtain among Caribbean youth due to insufficient and often misguided education. Agricultural education should as far as possible help to bring Caribbean youths in tune with their environment so that they can regard their surroundings and the natural resources - abundant sunshine, favourable weather conditions and a fertile land as natural elements to be integrated into a pattern of productive living. An absence of such an orientation, has contributed to negative attitudes towards the land, a tendency to equate agriculture with degrading manual labour and a tendency for rural youth to abandon the land and flock to the urban centres in search of non-agriculture related employment, thereby adding to the increase in urban social problems.

To correct this negative orientation and strengthen the agricultural base of the islands' economy, governments in the Leeward islands have recognized the need to initiate agricultural diversification policies and have embarked upon programmes to improve agricultural education and training.

St. Kitts-Nevis: Prolonged reliance on a mono-crop economy has taken its toll on the productive capacity of the soil and has helped to retard the economic progress of the nation. In 1980, sugar and its by-products accounted for more than 70 percent of the country's export trade while providing employment for only 33 percent of the nation's labour force. Being totally dependent upon prices on the international market, sugar production is subject to much uncertainty and renders the mono-crop economy of St. Kitts-Nevis extremely vulnerable. Total sugar production in 1960 was 50,200 tons. By

1973 production reached a record low of 23,828 tons, rose to 41,000 tons in 1977 and declined again to 34,748 tons in 1980.

The fact that the government has recognized the limitations of a mono-crop economy, bodes well for agricultural diversification just as long as government pays more than lip-service to this objective. The best motivation government can provide is to teach by example, and in this regard some experimentation and research has been carried out by a government-created agency the National Agricultural Corporation (NACO), as well as by (CARDI) the Caribbean Agricultural Research and development Institute.

According to government statistics, government owns approximately 90 percent of the arable land, 70 per cent of which (approx. 12,000 acres) is devoted to sugar cane production. The sugar industry employs approximately 5,000 workers and is of paramount importance to the economic well-being of the nation. Small scale peasant farming is done by approximately 900 farmers in st. Kitts and 1,200 in Nevis. A core of eight agricultural extension officers provide advice and assistance to these small farmers, but the service provided is considered to be generally ineffective mainly on account of the weak training background of the staff and lack of administrative support such as marketing assistance and credit facilities. If more land can be made available to small farmers, with intensive training in agriculture, practical production techniques, proper credit and marketing assistance, agricultural production can become a dynamic force in ameliorating the current economic situation.

3

The recent (1984) 10-year development plan commissioned by the St. Kitts-Nevis government is aimed at nursing the ailing Sugar Industry back to financial good health. This attests to the level of commitment of the government to the future of the Sugar Industry. The plan will pay particular attention to land utilization, field practices, improvements to the transportation system, problems of soil erosion, long-term marketing prospects of the industry and possibilities for expansion in the use of by-products of the industry.

Primary Agricultural Education

In 1976 agricultural science was introduced into the curriculum of both primary and secondary schools. Prior to that date, some secondary schools had school gardens and some effort was made to teach agricultural science to pupils in these schools. The objective of the 1976 thrust was to increase the basic knowledge of agriculture, to create participation in government's drive in food production, to remove the stigma attached to agricultural labour and to teach the discipline of work.

In an effort to establish the programme fully in the system, the Education Ministry sent some teachers to Trinidad and Guyana for training, co-opted the assistance of a Regional Science Advisor and created the post of School Agricultural Officer. Land was acquired (in 1982) to provide school gardens for a limited number of schools. In the primary schools, gardening comprises the most significant activity of the programme, suitably bolstered by the annual 'school garden competition'.

Gardens are evaluated on the basis of productivity, design and organization and record-keeping. Only those schools possessing land participate in the competition. Of 19 primary and all-age schools in St. Kitts in 1980, only 12 schools were eligible to compete. In the schools without gardens, agricultural science is confined to theory. One weakness of the current approach is the absence of any comprehensive framework within which the subject is taught. There is as yet no syllabus, teaching guides, manuals or other teaching material. The extent of the school-gardening activity depends upon the degree of support given by headmasters and teachers who are themselves uncertain as to the real objectives of the programme and the means by which these should be accomplished. The programme is further handicapped by a lack of land, teaching facilities and simple garden tools. With these types of constraints, the programme has not expanded to the extent originally envisioned by education authorities.

In the Senior Primary (all-age) and Junior Secondary (Forms I-III) schools agricultural science is offered in preparation for the Certificate of Secondary Education (CSE) examination. The decision to introduce it into the curriculum at this level was based partly on the success of the CSE Biology course in the all-age schools. However, some basic weaknesses in the programme have come to light as follows:

The programme's initial intention was to provide students with the theoretical principles governing agricultural practices with a view to equipping them to be absorbed into the agricultural sector. However, given its present focus, the programme does not motivate students for practical involvement in agriculture. The

emphasis is on theoretical teaching with too little time devoted to practical field-work. As a result, the element of learning by doing and the productivity aspect is not reflected in the programme. Therefore students' motivation for participation in the course is based not on the desire to prepare for a career in agriculture, but merely to meet the requirements of the CSE examination. The education and training with their current theoretical emphasis, do not provide students with employable skills in agriculture. For the majority of students attending all-age schools, education terminates upon completion of courses at this level. It is important therefore that the training undertaken at this level be work-related. It is equally important for any grounding in agricultural science to be oriented towards participation - that is skills-oriented with an emphasis on practical teaching/learning.

For skills-oriented type of courses to be successfully introduced, however, it is necessary that land, tools and equipment, and qualified instructors be available. These instructors must have a positive approach to teaching agriculture and not regard it merely as 'just another job'. If teachers lack the conviction that the correct approach to education in agriculture could play a meaningful role in changing student's perspective towards the subject and their attitude to work, then much of their effort would be meaningless.

Secondary Agricultural Education

At the secondary level, agricultural science is presently offered in three high schools in St. Kitts and two in Nevis geared towards the requirements of the GCE examination. Results from the GCE examination have been generally encouraging.

In 1980 for example, the GCE exam results in Agricultural Science for the Gingerland High School in Nevis, achieved a 90 per cent pass rate: Out of 12 students who wrote the exam the pass-level was 1 student 'A'; 10 students 'B'. However, the GCE Agricultural Science programme has come in for its fair share of criticism. The program is heavily oriented towards the laboratory and therefore pays little emphasis to practical activity, the program is not geared to address agricultural problems of the Caribbean region, the program does not motivate students to look to agriculture as a career, instead it merely encourages them to take up agricultural science to pass the GCE exam. This is substantiated by the fact that after being offered for over six years, very few graduates undertake agricultural training or enter the agricultural sector upon leaving school. At the same time, there is no evidence of participation in the program by workers actively engaged in agriculture either at government or private-sector level.

In an attempt to make agricultural science more relevant to the needs of the Caribbean, the Caribbean Examination Council developed a course in conjunction with educators and agriculturalists from all islands in the region. In spite of the good intentions with which it was created, the programme has nevertheless had its problems and shortcomings. In its initial phase, the programme must be regarded as being at best, experimental. It seems, however that the programme's developers were unduly ambitious and their requirements unrealistic. For example, the programme recommends a minimum of one acre of land for 30 students. Most schools have access to less than half an acre for cultivation and experimentation. Additionally, the programme includes poultry raising to the magnitude of 50 layers and 100 broilers

every 8 to 10 weeks paying scant attention to the cost element involved. Laboratory and class-room sessions are unusually heavy - comprised of 8 to 10 periods per week. Over the two-year period of the programme each student is expected to attend 145 class sessions, 36 laboratory and 146 field sessions or a total of 327 periods all together.

In actuality the record does not measure up to the expectations. Students have limited access to laboratory since agricultural science students must share the facilities with students of other science subjects. Some students have access to labs once in three weeks. Access to farms or cultivation plots is similarly sporadic. Some students have to be transported several miles to the work plots. This makes the keeping of accurate records a difficult task and since the CXC syllabus makes Farm Record-keeping a vital part of the programme, this puts these students at a disadvantage.

The heavy work-load carried by some students - up to eight subjects for GCE/CXC - makes it difficult to allocate more than 5 periods per week to agricultural science in Forms IV and V. The CXC syllabus recommends 8-10 periods per week. It is therefore extremely difficult to implement the CXC syllabus successfully, under present circumstances. The CXC syllabus is in fact being revised to make it more compatible with Caribbean agricultural conditions and the school time-table.

This is a commendable step which should be complemented by a cadre of suitably qualified teachers, adequate cultivatable land, adequate teaching materials, tools and equipment. Government-owned estates in both St. Kitts and Nevis could be used to advantage to establish school farms, where each participating school could have its individual plot while sharing common equipment and facilities.

The need for increased training of manpower for the agricultural sector cannot be over-emphasized. To satisfy the requirements of the secondary schools alone, qualified agricultural teachers are required immediately. If money to provide such training is not immediately available, government should seek external assistance to provide scholarships/fellowships for training in this area. In the meantime however, the services and teaching facilities of the CARDI experimental station should be utilised to the schools' advantage.

In order to achieve the required orientation towards agriculture, teaching of agriculture and the introduction of 'fun' projects at the primary school level should be encouraged. This should be reinforced in the all-age schools as a skills-oriented subject to increase the chances of students finding gainful employment in the agricultural sector. At the same time, government programmes in agricultural diversification should seek to offer employment at the above-subsistence level to encourage suitably trained students to enter the work-force in this sector.

To support the programme, simple teaching materials such as booklets, posters, charts and graphs should be provided for all primary schools. Topics like fertilizers, irrigation, crop rotation and drainage should be introduced and their relevance and application to local conditions emphasized. Land should be made available for farm projects at the all-age and secondary school levels and the feasibility of sharing facilities explored in an effort to make the farms cost-effective. Adequate agricultural tools, laboratory equipment, text books and reference material should be provided. Teaching support should be provided to encourage the establishment of livestock units (poultry, pigs and rabbits for a start) on the school farms, where

cooperative farming principles could be explored at advantage. Pupils should be made to feel involved in the farm project at every level of operation. They should be involved in the planning of the farm, keeping records, allocation of its returns to different purposes and where possible, students should be allowed to share the proceeds from the farms. The productive unit should be regarded as an integral part of the life of the school.

The cooperative idea should be reinforced and complemented by the teaching of principles of marketing so that the students could be provided with the basic techniques for reaping the financial rewards of their labour. If the school farms are set up as cooperative ventures run by the students themselves, with proper management and direction they would hopefully acquire the required motivation to engage in agriculture as a financially rewarding activity. Such motivation is currently lacking.

Antigua/Barbuda

The decline of agricultural production in Antigua/Barbuda over the last two decades is phenomenal. During the 1950's for example agriculture provided employment for about 33 per cent of the total labour force. Over 12,000 acres were planted in sugar cane annually, while Sea Island Cotton cultivation yielded an average of one million pounds of lint annually. By 1977/78 agriculture occupied only 11 per cent of the labour force, sugar production was virtually abandoned and sea-island cotton production was down to approximately 20,000 pounds. Major agricultural products like food and vegetable crops experienced a similar decline.

According to Antigua's (Revised) Five-year Development Plan (1981-1985) agriculture over this period would provide employment for only 6.2 per cent of the labour force. At the same time, the unemployment rate over the same period is expected to increase from 19.9 per cent (1979) to approximately 21 per cent in 1985. This obviously unsatisfactory state of affairs is recognized by the government as needing immediate attention and to this end, government has earmarked EC \$26.5 million to be spent over the plan period (1981-1985) on rescue operations for the agricultural industry. This amount represents 16.3 per cent of the total capital expenditure over the plan period.

Government has identified nine major agricultural projects to be undertaken over the plan period. These include: Beef production, communal grazing, mini dams construction, corn and sorghum production and fence post production. In addition, approximately 800 acres have been put back into sugar-cane cultivation since 1980. Government recognizes the potential impact of agricultural production on the economy and encourages investment in agriculture by granting duty-free concessions on farm equipment and supplies and by making credit available to farmers through the Antigua and Barbuda Development Bank.

Some factors adversely affecting the industry include:

- a) the absence of a secure land tenure system;
- b) the weakness of the existing marketing structure;
- c) the shortage of irrigation water
- d) the need to improve agricultural education and training

In the context of Government's thrust to revitalize the agricultural industry and in consideration of the industry's income earning potential, the need for trained manpower to implement government's policy will become even more urgent. It is therefore crucial that the existing agricultural education and training programme be restructured to meet government's objectives.

Primary Agricultural Education

Although many of the primary schools in the rural areas have land available for small backyard gardens, agriculture is not taught in the primary schools of Antigua.

Some informal orientation to agriculture is however given through school gardening activity. Because agriculture is an important part of the environment, general science courses should be geared where possible to an understanding of the basic scientific principles involved in agriculture. This should help the pupil to better understand and relate to his environment. However, this would require, the development of a primary level curriculum which should incorporate the teaching of general science, agricultural science and the environment under one general umbrella.

All-age (Junior Secondary) Agricultural Education

Of the 31 all-age schools in Antigua, only 5 presently offer agricultural science as part of the curriculum. These offer classes in agricultural science in Forms I, II and III.

The objectives of the programme are as follows:

- to give a general background knowledge in the field of agriculture/management.

- b. to teach agricultural practices with emphasis on the teaching of scientific principles underlying the practices.
- c. to provide the students with an appreciation of the importance of agriculture in Antigua and the Caribbean.

Although the programme started officially in 1977, it is yet to be accepted as an effective part of the curriculum. Part of the explanation lies in the fact that the Cambridge GCE general science programme of which agricultural science forms a part, is not included in the list of examinable options for the 'O' Level secondary education. As such, the programme offers mainly a theoretical orientation to agricultural practices with a view to explaining scientific concepts and principles.

It should be noted as well, that the orientation of general science in all-age schools, is directly related to the teacher's assessment of whether or not a student is likely to achieve GCE 'O' Level Standard. Since most students of All-age schools do not normally continue to the GCE 'O' level, the agricultural science programme with its mainly theoretical orientation is unsuited for the needs of those students who terminate their education at this level. Ideally, their education and training should prepare them adequately to become productive members of the society. This objective will not be accomplished given the present approach to teaching agricultural science in All-age schools. A curriculum needs to be developed in agricultural science, to enable students to acquire the skills and competence necessary to earn a living.

Secondary Agricultural Education

At the secondary level, only two of the nine secondary schools, the Jennings Secondary and Otto Comprehensive Schools presently offer agricultural science as part of the curriculum. At Jennings, the programme which is geared towards the (CXC) examination, was started in 1981. However, the Antigua government has pursued the CXC agricultural programme with cautious optimism and does not seem to be in any hurry to implement it before the necessary preparations are made.

The problems and shortcomings of the CXC programme discussed earlier in the St. Kitts-Nevis context, are similarly frustrating for educators in Antigua. They have found that all the requirements of the syllabus can hardly be treated adequately in the limited time framework except in an institution which specializes in agricultural education. While the scope and content of the CXC programme might be more relevant to the needs of the Caribbean, the programme in its present form imposes financial constraints on the education departments implementing it. It is vital therefore, to have the programme modified to be more compatible with the financial capacity of the governments implementing it, retaining at the same time, the salient features which can contribute to the islands' development needs.

At present, the unavailability of suitably trained teaching staff is one major deterrent to the introduction of the CXC agricultural programme in the other secondary schools. Although land is available at the following schools - All Saints, Clare Hall, Pares and Barbuda Secondary, the CXC Agricultural science programme has not yet been added to their curriculum. While the government's gradualist policies are to be respected,

the potential of the agricultural sector must also be recognized. In Barbuda for example, the island's greatest economic potential is agriculture. Because of this, the introduction of an agricultural science programme in the Barbuda Secondary School should be given top priority. Funds should be allocated at the same time, to train a large enough squad of agricultural science teachers so that the programme could be implemented in those schools with suitable land, tools and equipment. In the meantime, however, the available teachers could be rotated between schools on such a basis that more students can benefit.

It has been suggested that a correct approach to agricultural education could provide the orientation needed to motivate the youths to regard agriculture as a viable force in the development process. In the context of the Antigua situation the following suggestions are offered:

Primary Agricultural Education

Agriculture should be added to the curriculum of Primary Schools and should be offered as part of an integrated science curriculum including general science, health science and agriculture. Fun projects and a school garden competition could help sustain the interest. To be effective, the programme must be supported by the ministry of Agriculture and by CARDI. Adequate teaching materials, teaching guides, garden tools, seeds, fertilizers and the like must be provided. Teacher training must be an essential part of the programme.

All-age Schools

Because the majority of students in All-age schools never go on to the GCE 'O' Level Standard their education and training should prepare them to join the labour force upon leaving school. Agricultural Science at this level, should therefore be work oriented and should encompass cooperative farming, livestock and poultry raising, farm-garden marketing principles and book keeping. Adequate gardening space, well equipped laboratories, teaching materials and trained teaching staff are all essential to the success of the programme.

Secondary Agricultural Education

The CXC agricultural science programme should be reviewed for cost-effectiveness and for practical implementation. The programme as currently offered at Jennings Secondary and at Otto's Comprehensive Schools should be expanded, and the programme should be introduced in the Barbuda Secondary School.

At the other Secondary Schools where land is available the feasibility of introducing the programme should be explored. This would depend largely on the availability of trained teaching staff and the provision of adequate funds for the establishment of livestock units (poultry, rabbits, pigs and possibly sheep and goats), equipment for laboratories, reference books and other teaching aids, fencing material, farm tools and equipment and the provision of funding for training of agricultural teaching staff.

Montserrat

Like governments in the other territories of the Leeward Islands, the government of Montserrat has recognized the importance of a vibrant agricultural sector to the overall development thrust. The revitalization of agriculture, is therefore given high priority in their overall Development programme.

Montserrat enjoys ideal climatic conditions for agricultural production but the island's mountainous terrain permits cultivation on about 8,000 acres only. However, another 9,500 acres are capable of supporting forestry and live stock. Given the correct orientation towards agriculture at an early age, if reinforcement is provided by government policies and private sector support, Montserrat's productive capacity could be exploited to economic advantage. According to government statistics, 63 per cent of Montserrat's food needs were imported in 1979. This represented approximately 30 per cent of total imports. In the same period, agricultural exports accounted for 68.7 per cent of the island's total exports. Heavy emigration during the 50's and 60's resulted in a decline in agricultural production and the number of farmers engaged in agriculture decreased by about 60 per cent over the same period.

In an effort to get agricultural production back on a sound footing the Montserrat government solicited the support of the Caribbean Agricultural Rural Development Advisory and Training Services (CARDATS). The group, operating under the aegis of FAO/UNDP has initiated an innovative training programme, geared towards the training of small farmers to engage in agricultural production on a commercial basis. The programme has achieved considerable success to date. In 1981 for example, 36 farmers participating in the programme produced 70 per cent of the island's

agricultural production. While education alone cannot guarantee increased agricultural production, if properly administered, it can play an important part in preparing individuals for employment. It is essential therefore, if education is to achieve this objective, that agricultural education incorporate a work-related orientation in its overall scope. An attempt to do this has been made by introducing agriculture in the formal curriculum of the Montserrat school system.

Primary Agricultural Education

Agricultural education at the primary level, should emphasize as much as possible, agricultural orientation as an integral part of environmental studies. In Montserrat, this approach to introducing agricultural education has been reasonably successful. Older pupils in the primary schools are exposed to some elements of agricultural science for one period per week in activities centering around the school garden. There is however, no structured curriculum to follow. This is perhaps the most fundamental weakness of the programme.

However, the programme is also plagued with basic inadequacies like a shortage of trained teachers, unavailability of instructional materials, tools, equipment and proper fencing for the lots. This has rendered the programme less effective than it ought to be and has not served to reinforce positive attitudes towards agriculture in the minds of the students.

If the stigma attached to agriculture is to be effectively eradicated it is vital that every effort be made to integrate the teaching of agriculture with the environmental

studies to present agriculture as a natural feature of the environment. At the same time, the provision of adequate facilities, teaching materials, tools, equipment and plots for experimental purposes must be seen as an urgent priority by Government. Finally, the training of an adequate number of teachers on an on-going basis must be seen as being vital to the success of any agricultural education programme. Until these anomalies are recognized and corrected, agricultural education at that crucial level, would continue to be less effective than desirable.

Agricultural Education in All-age and Junior Secondary Schools

Agricultural education in Montserrat's All-age and Junior Secondary Schools follows the same syllabus. However, class-room exposure at the two levels is not the same. This raises some questions as to the objectives of the programme at the different levels.

In the All-age schools, for example, agricultural science is offered for one period per week in Senior I and four periods per week in Senior II (Forms I and II). In the Junior Secondary Schools however, an average of three periods per week is offered in Forms I and II.

Because education tends to be terminal at this level for students in these schools, it would be more appropriate to offer three-year skills - oriented courses to all these students to equip them for the employment market. At present, after their nine to ten years of education, students at this level end up with little work related education or training and face bleak prospects of finding worthwhile employment in a tight job

market. In essence then, what is required is the restructuring of the system to provide a more flexible work-oriented programme to students at this level so that they could be more employable upon termination of their education or alternatively so that they could channel their skills into the creation of small business ventures.

One practice at this level of education which should be discouraged is the exclusion of girls from the agricultural science programme. These students are normally directed to the home economics course which entails sewing and cooking. The irony of this situation becomes obvious when one considers that (a) agriculture and home economics are closely related and (b) about 40 per cent of Montserrat's farmers are women.

Other areas requiring attention with a view to improving the orientation of agriculture in the All-age and Junior Secondary Schools, include:

- a) the animal science segment of the programme - this should be increased and integrated with crop production.
- b) time allotted to agriculture - the number of periods should be increased at this level.
- c) Provision of land for school gardens, provision of tools, equipment, fencing materials, teacher training, shortage of relevant material and laboratory equipment are all areas requiring urgent attention.

Agricultural Education at Secondary Level

Since 1980, Agricultural Science has been offered at the Montserrat Secondary School as an integral part of the curriculum. Initially the programme was geared to Forms I to III only. However, with the introduction of the CXC programme, the course is now offered to Forms IV and V as well. As is the case with the other territories of the Leeward Islands, the requirements of the CXC programme effectively places it beyond the financial capability of the education department to implement fully.

Although a CXC programme in agriculture is currently being offered, the education department recognizes that the objectives of the programme will not be achieved as planned given the following problem areas:

- a. Land for school farming activity should be made available. Because of the school's location (in the city) and the current rate of population expansion, a suitable site outside the city should be provided. This however introduces problems of accessibility and control.
- b. If the demands of the CXC syllabus are to be satisfied, the number of periods devoted to agricultural instruction and practice must be increased.
- c. The need to establish administrative responsibility within the Education Department is crucial.
- d. Additional trained teaching staff is required to meet the demands of the CXC syllabus.

In general, the teaching of agricultural science in the schools of the Leeward Islands continues to frustrate educators and planners. The CXC syllabus is costly to implement and in some areas it might be considered over-ambitious. Continued progress in the agricultural sector depends in part on additional public sector investment in agricultural education and agricultural development programmes.

Non Formal and Continuing Education

Non-formal education has assumed considerable prominence in developing countries, partly on account of growing disillusionment on the part of educators and policy makers over the ineffectiveness of formal education to solve fast enough, the growing problems associated with under-development. This new 'competitor' to formal education has evoked a great deal of controversy, misapprehension and curiosity within educational circles.⁴

Coombs (1976) defines non-formal education as a 'bewildering assortment of organized educational activities outside the formal system. There are intended to serve identifiable learning needs' of subgroups in any society, and include children, youths, adults, merchants, craftsmen, affluent or poor families.⁵ Non formal education in a broad context assumes much greater flexibility, versatility and adaptability than formal education and addresses learning needs of virtually any kind of clientele. Older than formal education, non-formal education activities include indigenous tribal puberty rites, religious instruction and ceremonies and occupational apprenticeships in under-developed countries long before the missionaries arrived with their modern schools.⁶ Examples of 'modern' non-formal education courses include adult literacy classes, agricultural extension services, cooperatives, various types of technical training, women's classes in home economics, child care, health, nutrition, family planning, various types of arts and craft courses and university extension courses of one type or another.

● Coombs holds that non-formal education cannot be regarded in the narrow conventional perspective which equates education with schooling and measures it by years of classroom exposure and certificates.⁷ Indeed, education is more aptly equated with learning, structured or unstructured however or wherever it is acquired, and unless it is seen in this larger context, there is 'no rational basis' for thinking about nonformal education or "life-long education."⁸ The notion that non-formal education serves the sole purpose of providing the equivalent of regular school subjects and skills through 'out-of-school' channels for those deprived of a real schooling earlier has given rise to the further mis-conception that equates non-formal education with "adult education", which in many developing countries is interpreted to mean 'literacy training' for people beyond school age.

Coombs contends that such misconceptions have fostered an 'unwholesome sense of rivalry' between formal and non-formal education for financial resources and recognition.⁹ Further, this kind of thinking results in the neglect in many situations, of the learning needs of school drop-outs and other out-of-school youths in the 10-20 age bracket who comprise as much as 90 per cent of the youthful population in some developing areas.¹⁰

Coombs offers the following explanation for the large number of out of school youths in developing countries: This, he suggests, is largely a function of the euphoric theory of the 1950's which held that the formal school system would take care of the education needs of all 6-18 year olds while adult education would see to the educational deficiencies of the older population who had been deprived of a proper

schooling. This was intended to break the familiar cycle of illiteracy and ignorance in a relatively short time. Two decades later, it became evident that the theory was unrealistic, not only was there unprecedented expansion of the school systems, but there was as well, unanticipated increase in the school age population, the number of early drop outs and the unit cost of education.

What became apparent, was that the education being offered was incompatible with the basic learning needs and circumstances of the youthful population. As a consequence Coombs holds, a large number of youths are caught mid-stream, abandoned by a theory that did not work.¹¹ They have been ignored by the formal school system, they are technically too young for adult education and with the emphasis on 'qualifications' in the majority of developing countries, they do not qualify for acceptance into the technical and vocational programmes. They are therefore left largely to their own devices to eke out a living in societies that offer very limited opportunities.

One of the myths about non-formal education, is the popular belief that it is only for poor people and poor countries who can afford nothing better, but Coombs points out that many of the richer countries make much more extensive use of non-formal education than the poor ones, and could hardly exist without it. He cites the United States as an example where literally thousands of medical doctors, dentists, space engineers and other professionals rely on 'repeated doses' of non-formal education to keep themselves professionally in tune with developments in the rapidly moving frontiers of their respective fields.¹² He notes the following:

Corporations spend millions of dollars every year "re-educating" their executives, and retraining their supervisors, workers and even their customers to handle new technologies and products. Millions of high school and college graduates participate in a vast assortment of out-of-school parallel educational programs, to improve their occupational status or options, to expand their horizons, or to find pleasure. Something similar is taking place on an increasing scale in other industrialized countries.¹³

The United States can hardly be considered a poor country and within the wide range of people who take advantage of non-formal education, all can hardly be considered 'poor people'.

On the question of planning, Coombs is critical of the relatively poor attention given to non-formal education as opposed to formal education by national planning commissions. Such planning as is done, is geared in any event to 'perpetuating the system in its present image' not facilitating long overdue changes in it.¹⁴ He suggests that the considerable diversity of non-formal education programs demand a different planning approach which should take into account the particular clients their objectives, their learning needs and the use they can make of different types of new learning after they have acquired it. Planners of non-formal education should ensure that the programs they offer meet the most urgent needs of developing areas and are in harmony with other development activities. For example, a developing country wishing to introduce light industries, must ensure that an adequate supply of trained technicians, administrators and managers are available to meet the needs of industrialization. Most of the required educational input for such a development scheme, must be provided in the non-formal model - not the formal.

Coombs makes the vital point, that in the final analysis, it is people who make a scheme work. To do so, they must acquire and apply a variety of new skills, new

types of knowledge, new perceptions and often, new attitudes. Projects which lack adequate provision of the right kind of educational inputs, pay in the end with a lower benefit - cost ratio.¹⁵

Adult Education

The Adult Education association of the United States of America identifies, one of the goals of adult education as helping adults cope with social change.¹⁶ Because development embodies the concept of social change, adult education should be a vital part of any development strategy. The UNESCO sponsored Conference on Education in Addis Ababa (1961) noted that adult education was the form of education most closely geared to economic development and recommended that 'adequate priority' should be accorded it.¹⁷

The late Dr. Eric Williams, Prime Minister of Trinidad and Tobago, himself a pioneer in Caribbean education held the opinion that adult education should occupy a pivotal place in any education system. In his book Education in the British West Indies (1968) he had this to say: "Above all the people who take part in adult education and who direct it should purge their minds of the idea of education of a leisured class. It would be absurd to believe that one could get any real basis among British West Indian workers and peasants if the approach to them has any trace of the conception that the purpose of adult education is that they should be taught to appreciate art, literature and music".¹⁸ Williams emphasizes the necessity of infusing the social sciences into any adult education programme. He recommends the use of radio (and I might add Television) and film for educational purposes and stresses the importance

of subjects like agriculture, health and hygiene, nutrition, cooperatives and general science. Adult education programmes, he suggest should strive to elevate the position of women in West Indian society.¹⁹

In the Leeward Islands, there are basically two types of non-formal and continuing adult education programmes which are in operation. The "Evening Institute" which attempts to provide continuing education for those adults out of the formal school system, but who aspire to attain similar educational qualifications as those offered by the formal system. They are therefore required to attend classes in the regular class-room situation and are subject to the same system of examination and certification as in the formal system. The 'Community Courses' on the other hand, are less formalized, and attempt to train participants in vocational skills like Food Preservation, Dressmaking, Home Economics and Home Maintenance (carpentry), to enable them to increase their earning potential and the quality of their lives.

St. Kitts-Nevis

Adult and Continuing education in St. Kitts-Nevis had its roots in the early Extramural classes run by the University of the West Indies as early as 1949. Such classes were offered sporadically both in St. Kitts and Nevis in a limited number of subjects, until the government of St. Kitts-Nevis introduced a more formalized programme in 1976.

The Evening Institute attempts to prepare academically-oriented adults and youths outside of the formal education system, for the London and Cambridge GCE

examinations at the 'O' and 'A' levels. Subjects currently offered are predominantly academic and include Accounting, English, Spanish, Commerce, Biology, Typing. Because the courses are mainly academic in nature, they are limited in their appeal to the adult public. Classes are concentrated mainly in urban centres like Basseterre, Charlestown, Sandy Point and Cayon. This leaves students in the rural districts at considerable disadvantage. The system is weak in several respects. Text books are not only costly, but they are usually insufficient to satisfy the demand. This affects the productivity of the students who, in spite of this obvious disadvantage, have managed to produce favourable results. The system would benefit immensely by the provision of adequate reading material, upgrading of the library facilities and providing more text and reference books. Provision should be made as well, for extending the service to those rural areas not presently served, where there is adequate demand to warrant its provision.

Emphasis on examination and certification should be reduced and effort made to attract more people into the courses for self-improvement by offering a range of courses based on needs assessment.

The Community Courses are largely non-examination courses, which apart from trying to upgrade vocational skills, attempt as well to develop positive community-oriented attitudes and equip citizens to lead healthy and productive lives.

These Community Courses can fill a vital need if the programme is expanded to allow for other areas of interest. According to Education Ministry records, courses offered (in 1981) included among others, dressmaking and home economics. The Education

Ministry has explored the feasibility of offering courses in the following additional areas. Backyard gardening, carpentry, catering, masonry, motor-mechanics, food processing, handicrafts, typewriting. Successful implementation of courses in these areas is dependent upon the availability of qualified teachers, adequate tools and equipment and properly furnished facilities within which these subjects can be taught.

The programme is currently heavily dependent on the limited facilities of government-run schools. Facilities are particularly scarce in the rural areas where the programme can make its greatest impact. It is these areas which are the most neglected. Provision of the necessary facilities should be given primary consideration and incentives should be offered to attract qualified tutors to the rural areas. If the Community Courses are to be effective they must attract as well, able adults involved in all aspects of community life since in the final analysis, development depends on all people - not just young adults or those academically inclined.

Antigua

Non-formal and continuing education in Antigua is comprised of academic oriented courses offered by the Extra-Mural Studies Department of the University of the West Indies, industrial skills-related courses offered by The Antigua Caribbean Training Institute (ACTI) geared mainly to adults, and a variety of adult education courses offered by the Community Development Division of the Ministry of Education.

The Extra Mural evening courses cater mainly to young adults and youths outside of the formal education system who have acquired passes in one or two subjects at the

'O' level of the GCE. The programme sets out to prepare them to acquire passes in other subjects necessary for gaining entry into University. Subjects offered include Accounting, English, Mathematics and Typing.

Courses are currently offered out of the University Centre located in St. Johns. The absence of Extra Mural Courses in the rural areas of Antigua and the difficulty of access to the Centre by rural residents, is one area of disadvantage which the programme suffers. If the courses were offered in rural areas, this would likely increase their appeal and reduce some of the "snob-value" presently attached to the programme.

The Antigua Caribbean Training Institute, a private sector organization offers work-related industrial-skills training to adults in a limited number of subject areas. Courses offered include Construction Technology, Electrical Appliance Repair and Alternative Energy Technology. The courses are less academically-oriented than the Extra-Mural Courses, and attempt rather to develop skills for income generation. They are nevertheless, considerably more appealing to the average citizen than the Extra Mural courses.

The adult education courses offered by the Community Development Division of the Ministry of Education appears most appealing to the public because of their wide geographical coverage. The programme is offered to both rural and urban communities throughout Antigua by Community Development officers who use existing community organizations as contact groups. Groups serviced include church

groups, sports clubs, youth groups and other established village groups. Where no such groups exist the community Development workers organize new ones. Courses offered include: Leadership Training, Needlework, Cookery, Handicraft and Leathercraft. The Division organizes an annual youth camp during the long summer holiday season. Through this work-oriented programme at least two community centres have been constructed in Buckley's Village and Barnes Hill with the aid of voluntary community assistance.

The overall quality of the programme could be significantly enhanced if attempts were made to supplement skills-oriented training with basic academic tools like reading skills, writing and basic mathematics. Efforts should be made as well, to expand the scope of subjects offered to include agro-based skills like livestock farming, poultry-raising, food preservation, and basic agricultural skills.

Montserrat

The Extra-Mural Department of the University of the West Indies is largely responsible for non-formal and continuing Education in Montserrat. The Department organizes evening classes in academic subjects like English and Accounting and attempts to prepare adult students outside of the formalized system for the 'O' level examinations of the General Certificate of Education. Because of its academic orientation the programme is limited in its appeal. The courses are offered at the University Centre in Plymouth, and this puts the rural areas at a disadvantage. There is urgent need to expand the number and type of courses offered to increase the

programme's appeal to the average citizen, but a private-sector organization such as the University Centre, is subject to rigid policy and financial constraints. It is therefore up to the Education Ministry to develop a suitably comprehensive policy for adult education and training which should include not only academically oriented courses, but industrial skills development courses as well.

From the evidence available, it seems fair to conclude that none of the three territories studied have developed a clearly defined policy for non-formal and continuing (adult) education around which suitably workable strategies could be formulated. To continue to offer adult education courses on a 'hit-or-miss' basis would be costly and ineffective. Clear policy guidelines are necessary in order to identify potential areas of need and to develop training programmes to satisfy these needs.

Because favourable potential exists in all three territories, a well-defined overall policy for the development and implementation of a co-ordinated adult education programme to exploit this potential, is recommended. Such a policy and the resulting strategy for its implementation could be developed co-operatively with the help of regional experts, since the broad areas of needs in all three territories are basically the same. The development of an overall strategy for adult education for the Leeward Islands would require careful planning and competent guidance.

Such a strategy should give careful consideration to areas which have up to now been taken for granted. Formulation of any comprehensive adult education strategy should give consideration to the following:

- a) Should it be based on the learners' needs or on the country's needs? What needs should be given priority? Such questions could best be answered by careful assessment of the needs of the society through surveys, questionnaires, interviews and public opinion forums. Needs versus wants should be emphasized and these should be identified by the users i.e. the population at large - not by the bureaucracy.
- b) What objectives are we trying to accomplish? The content of the curriculum should be geared to the basic needs of the country, as reflected by the knowledge it imparts and the skills that it teaches. The learners' needs and interests should determine curriculum content. Skills taught should be work-related.
- c) Should adult education be economics-oriented or socially determined? Do the policies reflect social needs?
- d) Is adult education reaching the people who need it most? Should it be a grass-roots movement or should it be administered from the top.

Note: The record of achievement by ACTI in Antigua is proof that adult education in the Leeward Islands, does not have to be administered by governments.

- e) How do we evaluate different types of courses? What criteria do we use to determine the method of evaluation? Whether or not we evaluate the adult learner and the method of evaluation used, should depend largely on whether or not a course is being taken for credit or for interest. Feed back from the users is vital to the success of any such programme. To ensure this level of input, technical assistance is required from specialists in the field of Adult Education.

- f) What will it cost and what are the likely benefits. Successful implementation of any adult education programme will be dependent upon results of cost/benefit analyses before any programme is implemented.

Given its increasing popularity, it is safe to assume that the momentum that non-formal education has generated in the Leeward Islands within recent years will continue to build and not become just another passing band-wagon. Caution is advised however, to ensure that unrealistic expectations are not prematurely generated, as these could result in dismal failure of the most well intentioned programs. This can hopefully be avoided by careful and adequate planning which should allow for frequent evaluation as programs evolve. The non-formal education model is an ideal tool through which young people whose formal education terminated pre-maturely, can be given a 'second chance' to obtain the equivalent of a formal education on a part-time basis. Such a program has been successfully implemented in Thailand. It makes use of the same facilities used by the formal education programme, outside of the regular hours, thereby achieving considerable cost savings.²⁰

The non-formal model can also be used effectively to impart knowledge and develop those skills in the adults in society who can make more immediate impact on the process of development.

Co-operatives

Because youths (between the ages of 13 and 20) comprise approximately 50-60 percent of the population of many Caribbean territories, no development strategy can afford to ignore, or fail to provide for their preparation to participate in the process of development. It is vital to instill in them proper attitudes, values and skills, such as are necessary for sustained growth and development. There is a growing awareness in the Commonwealth Caribbean that co-operatives have a significant role to play in the socio-economic and cultural development of the region. In light of this, it is important to give adequate consideration to the incorporation of co-operative education into the curriculum of schools, and in general to regard the co-operative as a vital instrument in the process of development.

The Place of Co-operative Education in Development

William Demas, President of the Caribbean Development Bank, writing in regard to the role of co-operatives in the social, economic and cultural development of the Caribbean, states: "In an area such as the West Indies where (this) profound unemployment problem exists and where it is important to encourage self-employment and co-operative endeavour, it is surprising that the subject of co-operatives is not a compulsory subject in all secondary schools and even in primary schools".²¹ The point is well taken, for whereas a number of school co-operatives are in operation in many of the islands, and whereas they do play some part in creating an awareness of the potential and possibilities of co-operation, there is still an urgent need for a

continuous and formalized education program to provide a clearer understanding of co-operatives as a vehicle for social change and economic development. There is tremendous scope for a comprehensive program, which should embrace primary, secondary, and adult education, as well as teacher training.

For example, even where school co-operatives have been in existence for a number of years, it is at best unclear to what extent, if any, they have functioned 'successfully'. By and large, children are still virtually ignorant of the purposes and practices of co-operatives. Mostly they have only a superficial grasp of the practical ways in which they can use the co-operative effort to help their own personal development. Generally they have not yet mastered the concept of how they themselves could translate the benefits - financial and otherwise - to the larger communities in which they live and function. One possible explanation is that children are not being taught in any systematic way what the fundamentals of co-operation are, and how it should foster and transcend financial consideration. It is questionable to what extent they have understood and internalized such concepts as self-reliance and self-help, or the impact that such ideals can have on their overall social, cultural, and economic development. Such concepts must be carefully and painstakingly taught in order to assist children in learning to make the right connections, vis-a-vis self-improvement, community improvement and regional development.

Co-operative education must hold as its primary objective, the inculcation of a deep and all encompassing understanding of the co-operative movement. To be effective, it must spell out in careful detail the purposes of co-operative effort, and seek to portray the direct and indirect impact that co-operative development can have on

their total existence and welfare. To be complete, it must present all sides of the subject, including the countervailing factors in co-operative development - what problems and pitfalls attend the co-op endeavour and where, how and why co-operatives are likely or unlikely to succeed. Of equal importance, co-operative education must include a structured program of skill development, leadership training, managerial, technical and professional know how and basic elementary life skills as are appropriate and necessary. The idea of co-operation embodies knowledge of human relation, hence it is important to ensure that these ideas are well presented in order to justify the inclusion of the subject into the curriculum.

Furthermore, conscious effort must be made to develop within the curriculum the linkages which exist between the class-room and the community. No co-operative program of education is complete if it is presented in isolation from other development aspects of individual, community and nation building, or, if it is presented merely as an academic subject to be taught to children without enabling them to make the necessary connections regarding how the theory applies in a practical, concrete situation. This implies that a program of co-operative education can only succeed if it is taught in its practical aspects as well. It is in this regard that school co-operatives will be particularly instrumental to balance classroom instruction.

Ideally, school aged children could benefit to far greater advantage if their co-op education was tied in with thriving production and/or consumer oriented co-operatives owned and operated by the adult sector of the community. This would be an extremely important linkage to make, in that it would present a clear picture to the youth of how

they could (a) contribute to the welfare of an existing co-operative (b) how they could prepare themselves to take over the running of co-ops when they grow up; (c) learn to communicate and work with persons from a number of different sectors of the society, and different levels of proficiency, literacy and skill; (d) help many adults who may not have had, - or who may not have benefitted from formal co-operative education.

Although the emphasis thus far has been on co-operative education for the youth sector, its importance is no less significant for the adult sector of the society. Indeed, there is little doubt that in terms of short term co-operative development, the imperative is for adult instruction. This would of necessity be less formal than the youth instruction, be no less intense and hopefully no less effective. No effort should be spared to ensure that wherever possible, formalized courses of instruction are offered to adults in the form of lectures, seminars, workshops and the like. These should be open to all adults including government officials, businessmen, teachers, parents, and should be mandatory for anyone directly involved in the co-operative venture.

The place of co-operative education in development should be clear, if it is generally accepted that (a) co-operatives can and do aid development, (b) that education is an excellent tool and should be used constructively to promote both individual and national growth, and (c) a serious commitment to development should be treated as such and not left to chance. Hopefully, the end result of structured teaching of co-operatives would be a more 'capable' society, if only because the population understands and internalizes the more crucial aspects of its fundamental operation.

This section of the Study will examine ways in which co-operative education can be introduced into the existing education system in the Leeward Islands and the impact that it can have on economic development.

The role of Government in Co-operative Education

Governments in the Caribbean are notorious for their capacity to imitate. They have become particularly adept at imitating policies and practices of their former colonial masters and the larger, more developed metropolitan centres of the Western World. They have never had a reputation for being great initiators, nor are they quick to implement recommendations which, in their opinions, have not been 'tried and proven' in the developed countries. Regardless of their logic and pragmatism recommendations for change or for the implementation of new policies are nearly always treated with scepticism. The bookshelves of education departments throughout the region are stacked with reports and recommendations which gather dust while the root causes of the problem of under-development and its attendant evils, persist unattended. The report on a Regional Seminar on youth and Co-operatives held at the University of the West Indies (September 16-28, 1974) is a case in point. The Seminar was sponsored jointly by the government of Jamaica and ILO/DANIDA Co-operative Management and Training Program, and was attended by representatives from throughout the Caribbean.

The Leeward Islands were represented by participants from Antigua, Montserrat, St. Kitts and Nevis, all of whom were engaged in education and/or community development. One of the more feasible recommendations coming out of the seminar,

was the proposal that each territory set up a pilot project which would explore the idea of introducing co-operative education as an integral part of the education system on a formalized basis. The writer has found no evidence that anything concrete has been done to follow through the explicit recommendations of the seminar, in any of the islands being studied.

The reasons for this negligence on the part of the respective governments is unclear, since delegates to the seminar were all government employees, who each received a copy of the seminar report. The participants themselves made no apparent effort to initiate concrete action based on the findings and recommendations of the seminar.

Given that education has traditionally been the province of government, administered by the department of education, one would assume that the department would spearhead the move to seek out recommendations and pursue them if feasible, as pilot projects to test their viability before adopting them fully. One would assume further, that if education departments did not take such initiative, then government ministers would goad them into action. The imperative to produce should be almost automatically built into each worthwhile conference/seminar in which governments undertake to participate, assuming that there is merit to the outcome of such meetings.

Governments in the Leeward Islands have the capacity to aid in co-operative development but care must be taken to ensure that their role be restricted to "facilitators" of the process rather than "managers" of co-operatives. In other words, whereas government has an obligation to encourage, promote, develop and perhaps finance co-operative education and the development of co-operatives by providing the

necessary technical or professional assistance, care must be taken to safeguard co-operative development from becoming an outright instrument of government. In his paper on "Co-operatives and the Poor", Alexander Laidlaw, a Canadian expert on co-operatives points out that

"Co-operatives organized for the poor in the spirit of paternalism by government... have a high incidence of failure" and that "it is fatal for government representatives to attempt the management of co-ops."²²

Laidlaw points out further, that in many situations, the best role for government to play is in the field of research and training of personnel.²³

The Justification for Co-op Education

It was mentioned earlier in this section that there is a current need to instill positive attitudes and values in the youth of the Caribbean. To understand why this is necessary, we shall look more closely at the prevailing attitudes and values and why these need to be changed.

Because the Youths comprise the largest single sector of Caribbean society, it is important to understand their mental orientation with a view to strengthening it. While youth development is more a long term than short term process, it is crucial to the establishment of a secure future for Caribbean society. At the same time, there are immediate "spin-off" effects on the influence of children over their parents for instance, an influence of tremendous importance in development.

The most urgent problem facing the youth of our societies is a chronic and acute shortage of employment opportunities. This of course, creates an attitude of hopelessness and a 'malaise' that ushers in counter productive and sometimes destructive tendencies at both the individual and community levels. In a situation where children (and adults) are trained to expect only one type of employment, and where only white-collar employment is associated with social acceptability and "upward" mobility, children go through school aspiring to this type of employment. Moreover, their teachers, their parents and the entire society pressures them into believing that they are unsuccessful unless they qualify for white-collar jobs.

Because the number of available white-collar jobs is limited, the system is incapable of absorbing as many workers each year, as aspire to white-collar occupations.²⁴ The expectations are high, but somewhat unrealistic. The result, invariably, is disappointment, frustration and alienation among the youth who are left with little prospect for gainful employment. In addition, it breeds non-productivity in a sector which is potentially highly productive, very creative and idealistic given the right environment. On the other hand, it dooms to poverty this large group that could form a strong economic base for any society; produces feelings of powerlessness and forces excessive migration which permanently impoverishes the society.

In light of the foregoing, action must be taken to reverse these negative trends, and stem the wastage of human potential. If Caribbean youth can be taught how they can break out of the cycle of hopelessness, if they can be shown how they can, themselves, take an active part in improving their socio-economic situation and enhance their

political clout, the foundation for hard-core development would have been well laid. Given the degree to which young people in the Caribbean suffer from anomie this kind of break-out cannot be left to chance. If the process is to be reversed, diligent and structured action must be taken, and patience must be exercised since the process will be long and arduous.

The hope for success in any co-operative venture cannot be left only to academic instruction. It is mandatory that theory is balanced with practical instruction as well.

Hence it is necessary to create active co-operatives in which the theoretical and the practical both co-exist and the importance of one should not supercede the importance of the other. In this regard, the idea of "Pre-co-op" has emerged in islands such as Jamaica²⁵ where a co-operative group set up a society specifically to serve both the educational and practical functions involved in co-op development.

One important justification for co-operative instruction (both formal and non-formal) is the scope that it provides the population, to break the habit of blind copying from the developed countries without due evaluation of what is appropriate/inappropriate for local situations. It is not enough to follow blindly the policies or practices of established prospering co-ops in the developed countries. While close scrutiny of them is recommended, and while it is extremely desirable to "borrow" positive attributes from their basic philosophy and historical development, this can only be done if the terms of reference are carefully translated to the local historical, cultural and socio-economic conditions. Laidlaw points out that people emerging from a condition of under-development, i.e. people poised for co-operative development will automatically

be "co-operative", and that "those who have suffered from greed and avarice are likely to adopt the same qualities for their own survival or advancement.....26". In order to provide for the society a framework in which such a situation does not dominate, care must be taken to prove by instruction what the pains as well as the rewards of co-op development are likely to be and why it is necessary to emphasize local creativity rather than mindless imitation.

The September 1974 Seminar on Youth and Development previously referred to, identified eight factors which it concluded were important reasons for teaching co-operative education. These are as follows²⁷:-

1. Co-operative education is being undertaken on the assumption that co-operative education will be concomitant with other development trends in other institutions.
2. Co-operative attitudes are essential to advance the development of Caribbean people under basic principles of equitability, therefore the system of co-operative education will be advantageous as long as it makes as its primary objective the total development of the Caribbean masses.
3. Co-operative education will instill brotherhood versus the competitive individualistic attitudes which now exist.
4. In addition, co-operative education will encourage habits of thrift and the co-operative spirit.

5. Co-operative education would develop skills - managerial, vocational, leadership.
6. Co-operative education should teach children about their economic environment.
7. Co-operative education should provide the idea of ownership and control of national resources by the masses resulting in a more equitable distribution of national wealth.
8. Co-operative education will provide opportunities for emphasis on manual and technical skills redressing the imbalance which now exists in our education system and contribute to bridging the gaps between worker and intellectual.

The foregoing reasons tend to justify the inclusion of co-operative education in the curriculum of the formal education system, but by its very nature, co-operative education and training can be effective inside as well as outside the formal education system.

Non-formal Co-operative Education and Training

Laidlaw (1977), defines a co-operative as a business organization in which the components of ownership, control and use are integrated by being vested in the one body of people, the members.²⁸ Since traditionally, the majority of co-operative ventures are engaged in by adults more so than by youths, it might be useful to examine how non-formal co-operative education might be structured to meet the needs of adults.

Unless the persons entrusted to teach co-operative education have a keen knowledge of the subject area and are themselves committed to the idea of co-operation it would be extremely difficult for them to communicate to their trainees, a clear understanding of all that co-operative ideology and strategy embodies. Any sound adult education strategy in the area of co-operative education must therefore include teacher training. These teachers must themselves have a keen interest in co-operatives and must have more than just theoretical information. A sound background in subjects like commerce, accounting, agricultural technology is important and this must be supplemented by adequate teaching aids for the purpose of illustrating and reinforcing ideas being imparted. One major cause of failure in co-operatives is the lack of competent management. Although good management is not solely a product of education (it requires experience to help it develop), management training and leadership training are vital to the life of any co-operative and must therefore be included in the training programme of adult co-operators, both at top and middle management levels. Education and training through practical co-operative involvement provide adults with "on-the-job" training which, in the final analysis is the most effective type of training. If persons involved in co-operative ventures on a day to day basis can be exposed to supervision/guidance by professionals and experts in the field, they can be helped to recognize weaknesses and mistakes so that they can take steps to avoid or correct them. We have noted earlier, that education does not guarantee development, but no development can take place without a sufficient number of educated people to spear-head it.

This study suggests that co-operatives can play a vital role in the economic development of the Leeward Islands. In this context, the Loughborough experts noted

that "education is perhaps the most essential ingredient in co-operative development".²⁹ They agreed further, that in the task of reaching the poor and meeting their needs, the role of co-operative education and training is paramount and that 'adult education is a key component in co-operative education programs'.³⁰ The socio-economic conditions which prevail in the Leeward Islands at this point, make it difficult to differ from these positions, or not to attribute a high degree of importance to them, in our development planning strategy. Since education falls under the general aegis of local governments, it would seem appropriate in the given context, for local governments to become actively involved in a program of non-formal education and training targeted at adults. Favourable government policies can go a long way to facilitate co-operative education and training for both educators and trainees. Unless the attitude and the political disposition of government towards the co-operative effort is positive, the impact which co-operatives can have on the development thrust in the Leeward Islands would be dramatically reduced.

In the area of adult education, local governments can ensure that the correct climate is created whereby adult learning would be facilitated and in which training can produce positive results evidenced by concrete action. For example, through the auspices of local governments, idle estate lands can be put at the disposal of trainees to be used for 'pilot projects' or as 'experimental farms' for the purpose of developing expertise in agricultural skills, organizational techniques, management training and related skills. The Chestervale Chainsaw group in Jamaica - a "pre-co-op" where such skills were taught/learned is a good example of such an experimental situation.³¹

The positive role of Government is indeed a vital necessity in the teaching/establishing of co-operatives. But it has been suggested that by and large, the main area of involvement should be limited to providing education and creating a climate (through patronage and legislation) in which cooperatives can develop and thrive.³² Apart from this function, the interaction of government with the co-operative venture must be extremely minimal since in fact government intervention can potentially be more of an impediment than a help to the venture. Too much government involvement can thwart the co-operative spirit and erode the entire system, levelling it to another bureaucratic organ which can be oppressive and of little use to society. In India, for example, where government involvement in the co-operative venture has been excessive, government controls the operation of co-operatives to the detriment of the societies themselves and as a result, many co-operatives there fail miserably. Laidlaw illustrates the point when he states:

"Co-operation has remained a policy of government in India rather than a movement of the people..... co-operation is merely a government policy and not a live movement.³³

Former Prime Minister Nehru, emphasized the point when he stated:

"The essence of the co-operative movement is in its non-official, self-dependent and self-reliant character.... the essence of co-operation is its voluntary character. There can be no imposed co-operation.... nothing can be more fatal than government control which is the embrace of death"³⁴

According to Laidlaw, the proper relationship that should exist between co-operatives and government was accurately set forth in Section 4 of the ILO Cooperatives (Developing Countries) Recommendation, 1966. It states as follows:

"Governments of developing countries should formulate and carry out a policy under which co-operatives receive aid and encouragement, of an economic, financial, technical, legislative or other character, without effect on their independence.³⁵

In regards to the provision of non-formal co-operative education, government's role, therefore, should be limited to the creation of a suitable climate within which such education and training can be successfully pursued. Additionally, governments should be actively supportive without being directly involved.

Co-operatives and the Community

The task of establishing linkages between the community as a whole and specific sectors at which co-operative education and training are specifically targeted in the Leeward Islands, should not be difficult. The structure for such linkages is already in place in the form of 4-H clubs, youth groups and cultural groups which work together on a variety of projects in a genuine spirit of co-operation. In order to establish these linkages, however, much effort will need to be put into seeking out the groups and wherever necessary, mobilizing them within their local community boundaries. Once the habit of 'co-operation' is formed at this level, the process of more hard-core structured co-operation either begins or quickens its pace within the community from

the grass-roots level and up - there is the deeply ingrained orientation to co-operation in all of the islands under study. For example, the idea of share-cropping has a long history in the Leeward Islands. Similarly, "giving out" animals is a common practice. (The owner of the animal, is helped with the care of the animal by another, the "minder". The latter "help" the former for an agreed upon price - usually a half of the increase of the parent animal). The notion of "partnership" is common too, whereby one farmer (or group of farmers) would assist another and the favour is later reciprocated by the farmer(s) who received help in the first instance. These are the kinds of bases on which it would be necessary to build, in order to capitalize on what already exists.

Beyond these, it is necessary to set up linkages in uncharted areas. It will be necessary to establish connections with parent groups, village and parish councils, labour unions, and relevant government departments - such as the Ministries of Agriculture, Health, Welfare, Housing, Social Development, Finance, and with divisions like Marketing Boards, consumer boards, and the like.

In order to ensure the healthy development of the co-operative venture, attempts must be made to "co-opt" the patronage of the more traditional and well established elements in the private (business) sector. This might not be easy, since co-operatives could be and often are held in contempt by members of this sector of society. Usually they do not welcome the challenge that co-operatives present, insofar as they can and do alter the pattern of consumer behaviour on which private enterprise thrives. It is highly desirable for the co-operative movement to win the respect of the private sector, and vice versa, in order that they may co-exist amicably, validate each other and develop a strong overall community.

On the broader scale, it is desirable to develop linkages within the larger community, and on the regional and international levels for the purpose of obtaining financial and technical aid, and bulding up respectability and good will. Aid could be offered in many different ways, monetary, professional, advisory, personnel training, educational and legal. What is important in seeking and receiving aid, especially from the international sources in the broader "community" is to ensure that if and when aid is granted, it is used for the purpose that it was intended and that the persons who are supposed to be the primary recipients of the aid do in fact benefit by it in a direct way.

The need for sustained inter-action of co-operatives and other sectors in the society, both governmental and non-governmental (i.e. public and private) is clearly evident, so that the co-operative sector can operate more efficiently and effectively. The desired degree of integration can hardly be achieved overnight, but is an ideal that should be kept in the foreground of all policy making and strategic development planning in the islands. In order for the co-operative movement to come into its own, it has to establish itself and be duly recognized by all sectors of the society and draw its membership and support from persons in every category, at the same time that it maintains its primary purpose of service to the weak, dis-enfranchised and needy of the society. Laidlaw's observation that formal education by itself can in no way bring about the kind of co-operative society that we desire and aspire to must be borne in mind. This is not to negate the value and importance of education, rather, the intention is to emphasize the fact that important as education is to the development of the co-operative spirit, and co-operative societies, within the Leeward Islands, on its own, devoid of community support at the local, regional and international levels, it is at best a weak tool for forging a more equal society.

A summary of the salient points of this section will help order the role and function of the co-operative movement in the Leeward Islands, and will provide a birds-eye view of the movement as perceived by the writer vis-a-vis education and development. There is no assumption that these points are exhaustive but the submission is made because they are deemed important.

1. It is generally accepted throughout the region that co-operative education is essential, especially in light of the long-term benefits that should result from its inclusion in the education system as a whole.
2. The kind of education strategy suggested by this study is comprehensive in nature and should be aimed at all sectors of society.
3. The system of education proposed is both formal and non-formal.
4. For the most part the formal education should be geared to the requirements of school aged children at both the primary and the secondary levels. This does not preclude them benefitting from non-formal co-operative education as well.
5. At the same time, adults should be the chief recipients of non-formal education. It is recommended that as far as possible and wherever indicated, adults should be given formal education (i.e. structured courses of a more theoretical nature).
6. a. Formal education should include courses of study in the fundamentals of co-operatives and techniques should be employed to help foster at an early age

the invaluable co-operative spirit on which success of the movement depends.

- b. At the adult level, formal education could take the form of day and/or evening courses in subjects relating to the movement, as well as in seminars, workshops and lectures designed specifically for committed as well as potential co-operators.
7. The trainers themselves should have a high level of proficiency in formulating and presenting programs. The field of training should only be handled by experts who are themselves trained and experienced.
8. While education is vital, it cannot on its own bring about all the circumstances necessary to ensure the viability and good health of the co-operative movement. Therefore, it would be a mistake to expect the school system alone to assume responsibility for the eventual success or failure of the co-operative venture in the Leeward Islands.
9. Efforts must be made by both the public and private sectors of the society to understand the co-operative movement and to fully endorse it as a complementary force within the society. One function that education can fill should be the elevation of the co-operative movement from its low-status to a prestigious viable and desirable alternative force within the society.
10. The role of government should primarily be to ensure that co-operative education and training are introduced/incorporated into the system, and

maintained on an ongoing basis. Government should employ such social, political, and economic policies as will guarantee the good health of the co-operative movement, and produce an environment and climate in which co-operatives can develop and flourish.

11. Governments must, however, be prepared to leave the actual management of co-operatives to the movement itself and the various groups that develop within it. The delicate balance of goodwill without control has to be constantly maintained at the same time that governments demonstrate support in an active way.
12. In order to build up prestige, the co-op movement must establish appropriate linkages, not only in its local environment, but on a regional and international basis. More importantly, the movement must use the connections it makes to its advantage in order to boost its prestige, obtain international recognition and patronage, benefit from financial, professional, technical and material assistance wherever possible, and broaden its scope and potential.

The history of the movement in the area indicates clearly that the stage is set for a "take-off" of the co-operative movement, in the Leeward Islands as long as careful policy planning is implemented. The onus is on the policy planners and the policy makers to take their cues and move astutely to capture the mood of the area in the hope of meeting the needs of the population. Efficient manipulation of this fundamental development tool, can hopefully go a long way towards fostering a dramatic upward surge in the growth and development of the Leeward Islands.

On the Job Training

In an effort to achieve the goal of socio-economic transformation and development, it is important that a country pays particular attention to the following critical areas:

- a) Human Resource Development - The Development and improvement of management and worker skills at all levels; the development of appropriate technology in all areas of production. Productivity must be emphasized.
- b) Export Market Research and Promotion - Marketing plays a vital role in any development endeavour. Markets for workers' produce must be relentlessly sought-out. Promotion is vital to the successful outcome, but developing good marketing skills is necessary.
- c) In-Service Training: As part of human resource development, it is important that an In-Service Training Unit be established, for intensive training on a regular basis of civil servants, headteachers, top and middle management personnel.

Throughout the Leeward Islands, worker skills are at best mediocre on average, and this may be attributed to the failure of our education systems to include job-training skills in the curriculum. Most of the in-service training for workers in the Leeward Islands, is restricted to teachers who are usually exposed once or twice annually to local and regional in-service workshops. These range from one day to three weeks and focus generally on teaching methods in core curriculum areas like language, arts, mathematics and the sciences. It is important therefore that each department of the

respective governments, assumes responsibility for providing on-the-job and in-service programs of instruction to up-grade the skills of personnel. Because pre-employment education pays little attention to practical skills, this type of continuous training is vital. The likelihood exists that top officials will complain that their staff is too busy to afford the luxury of in-service training. They should not fail, however, to recognize the linkages between training and the development of human resources.

Harbison (1965) point out that education supplies general knowledge and develops basic mental ability while training is concerned more with the development of specific skills to perform concrete tasks. Much of the expenditure on education, he contends, will be wasted unless it is followed up by intensive and systematic training during the course of employment.³⁶

One innovation in our current education system, might be the introduction of job skills training for high-school leavers in their last year of schooling in the formal education system and for new recruits into the job-market who may not have been exposed to such training, through adult education classes. This could reap considerable benefits in terms of worker-productivity and ultimately result in cost savings. Successful completion of such a course could be used as one criterion for entry into the job market, rather than the current emphasis on GCE 'O' level passes which in many cases are in subjects unrelated to the work involved. Private-sector employees should similarly strive to upgrade the skills of their manpower, through apprenticeship training schemes and on-the-job training programmes. Training for middle and top management could similarly yield considerable benefits to any business establishment in terms of efficiency, productivity, cost-savings and worker morale.

Government assistance to private-sector employers for specific type of training - particularly in areas where specific manpower skills are scarce could result in greater levels of efficiency and overall improvement in productivity. It must be recognized that to be effective, on-the-job training must be frequently and vigorously pursued. Once employees have undergone training, the climate must be created to permit them flexibility in carrying out new techniques learned.

Chapter 5 - Recent Trends in Education in the Leeward Islands

Notes and References:

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21. See Change and Development in the Caribbean by William Demas
22. See: Laidlaw, Alexander; Co-operatives and the Poor p. 70
23. Ibid p. 70.
24. This is a factor of the attrition rate within the white-collar sector of the economy, which is extremely low.
25. See Report on Regional Seminar on Youth and Co-operatives; U.S.I., Mona, Jamaica, p. 51.
26. See Alexander Laidlaw: Co-operatives and the Poor. op. cit. p. 71.
27. See Report on Regional Seminar on Youth Co-operatives, op. cit. p. 71.
28. See Laidlaw, Co-operatives and the Poor p. 59.
29. Ibid p. 23.
30. Ibid p. 23.
31. See: Report on Regional Seminar on Youth and Co-operatives. Page 51.
32. See Co-operatives and the Poor. Op. cit. p. 23.
33. Ibid p. 76.
34. Ibid p. 76.
35. Ibid p. 77.
36. Frederick Harbison, "The Prime Movers in Innovation" from Education and Economic Development. Edited by C. Arnold Anderson and Mary Jean Bowman 1965.

CHAPTER 6 - SUMMARY AND CONCLUSIONS

Summary and Conclusions

The main focus of this study has been objective analysis of the education systems of the Leeward Islands with a view to developing a clearer perspective on the relationship between education and economic development in these islands. In the process, several networks of constraint mitigating against change have been revealed.

In general, expansion of the educational systems in the Leeward Islands during the period under review has left much to be desired. The record of accomplishment suggests that the education policies pursued in the Leeward Islands over this period have failed to produce the kinds of results hoped for by development planners and policy-makers. Changes brought about by these policies have been linear, i.e. quantitative, not qualitative. Quantitatively, the record has been good in all territories under study. Enrolment rates have been consistently high but qualitatively, the performance has been less than desired. Failure rates in the external (G.C.E.) as well as regional (C.X.C.) examinations continue to be unsatisfactory (Refer appendices VIII, XXI and XXXI). The ratio of qualified teachers to students is dangerously low, drop-out rates continue to be unsatisfactory, and the high rate of exit of trained teachers from the profession (particularly in St. Kitts-Nevis) reduces the possibility of effecting vital changes from within the System. The emphasis on education for "white-collar" employment has created a vacuum in areas like agriculture and in other employment-creating disciplines. Overall development of technical education and vocational training has been slow and bears little relation to the expansion taking place generally, in secondary education.

Although some strides have been made in the area of curriculum diversification, there is considerable room for improvement particularly in technical and vocational subjects and in the teaching of agriculture. Here, the urgent need is for greater relevance to meet the needs of industry and the community, and to foster self-reliance. Although the principle of co-operation has been recognized as a vital ingredient in the process of development, co-operatives as a subject has not yet been introduced into the curricula of the education systems of the Leeward Islands. This re-inforces the point that educational policy must be linked with the overall social and developmental needs of the community and must be formulated in conjunction with other national development objectives.

Educational change is undoubtedly a desirable goal in itself and it is politically feasible that individual national governments in the Leeward Islands strive to facilitate such change within their country, but if the education systems of the Leeward Islands are to produce change, then those responsible for these systems must begin by recognizing the areas of weakness which exist and by paying more than lip service to basic structural change. 'Change is a harsh and abrasive process, but nowhere more so than in the educational structure'². The achievement of change is dependent upon a number of socio-political and cultural factors which vary from country to country.

This study has pointed out that despite the efforts to expand the educational system by (a) making secondary education free and more easily accessible to children from all sectors of the society; (b) introducing vocational and technical training and (c) introducing tertiary education into the systems, the quality of education in the

Leeward Islands is still below the standard expected of it. Evidence of this manifests itself in high drop-out rates and high failure rates in both regional and external examinations, yet there has been considerable reluctance on the part of educators and educational administrators to stray too far from the systems established by the former colonialists whose influence has persisted even though they have removed themselves physically from the scene. The norms and reference points of the ex-colonial elite remain inspite of the overt rejection of colonialism and what is considered a 'good' education is still measured largely by European and American Standards. This explains to some extent, the reluctance on the part of Caribbean educators to introduce changes into the education system at a fast enough rate, since being the 'educated elite', they have retained many of the neo-colonial values and attitudes themselves.

This cautious attitude might be further explained (though not excused), by the general tendency of newly emerging countries to retain the educational standards and methods of the more developed countries of the world, to gain easier acceptance and recognition. They tend to regard any departure from the norms accepted by Western developed countries, as inferior and therefore undesirable.

Because of this attitude, we have seen a piece-meal approach to curriculum innovation at the Secondary level in the education systems of the Leeward Islands and in some cases where the content has been changed to introduce a Caribbean flavour, the overall framework has remained European. Educators and policy planners in the Leeward Islands must realize however, that even the best international practices in

education, may well be irrelevant to the Caribbean. The poor quality of teacher training has surfaced continuously as being a prominent contributor to the generally low standards of achievement, the lack of motivation and the alienation experienced in large measure by Caribbean youth. The importance of high quality teacher training cannot be too strongly stressed, since what comes out of the system can only be as good as what goes into it.

One question raised continuously, however, suggests that we perhaps expect more out of the school system, than the system is capable of producing. Thompson (1981) argues for example, that schools have been allocated tasks beyond their capacity, and roles which are conflicting. He suggests that reasons for their apparent failure may be due more to the societal context of schooling, than to the schools themselves.³ It has been pointed out as well, that in the overall process of development education is but one co-operant factor. It is vital therefore to have all the factors which contribute to the process, working together to achieve the development objectives set. This is not intended to negate the importance of education in the development matrix, rather it proposes to serve as a reminder that the education systems must be complemented by adequate input from the various other factors which impact upon development.

Education does not necessarily guarantee economic development but economic planners generally agree that no development can take place unless there is an adequate number of educated people in a society to help bring it about.

Given the limited natural resources and present manpower constraints, it is difficult to see how the Leeward Islands can achieve rapid and sustainable economic growth

without a sufficiently strong cadre of educated people to spear-head it. It remains therefore for educators and educational administrators in the Leeward Islands to re-examine their orientation to education and to schooling in an effort to forge the necessary links which will help ensure greater relevance and effectiveness. Reforms in education and schooling must encompass not only changes in curricula but must strive as well to bring about necessary changes in attitudes towards school and towards work. It is vital that closer links be forged between the school and the community and between the school and the workplace. The school is the ideal tool for forging such links in an effort to strengthen Caribbean cultural identity.

The continued high failure rates in the academic programs not only in the Leeward Islands but in other Caribbean countries (Refer Appendices XXXII-XXXV) suggest the need for drastic improvement in the screening/selection process. For those students who are obviously not oriented towards an academic career, structural changes in the system must place less emphasis on academic achievement and should strive instead to develop their manual and technical skills and to prepare them for creative employment.

To be an effective force, the school must not be isolated from the community - rather, closer co-ordination must be developed between the school and parents, tax-payers, faculty and students. Public opinion must be sought in areas such as school programs, essential activities and services, parent-teacher relationships, community relations and satisfaction/dis-satisfaction with the physical appearance of the school. It must be borne in mind that the total environment within a school setting can have an effect on the student's attitude toward all activities both inside and outside the classroom. To stem the current dis-enchantment and growing evidence of alienation

among Caribbean youth, a pedagogically-sound youth preparedness programme beginning inside the class-room and continuing for some time after the child leaves school is imperative. Contemporary Caribbean youths need all the help they can get in their search to find meaningful answers insofar as their responsibility as Caribbean men and women is concerned. Any pedagogically-sound youth preparedness program must take note of the demands of contemporary times and the education offered them must be goal-oriented. Such a program must consist not only of a moral and intellectual preparedness component, but of a total preparedness onslaught consisting of cultural, attitudinal, physical as well as intellectual training and preparation for life.

A report by a group of Caribbean experts entitled 'The Caribbean Community in the 1980's' suggests that unemployment, especially as it affects Caribbean youth, is the 'most explosive' problem facing the region today.⁴ This problem they suggest, has the potential of ruining the entire social fabric of Caribbean countries. Unemployment in fact, runs high among the young in every industrial country and the dichotomy between what the school imparts and what the society demands is becoming dangerously wider. 'White collar' work and manual labour confront one another from separate ends of the employment spectrum as personal vocations get sacrificed to social prestige. Young people tend to spurn directly productive jobs for fear of manual 'contamination'. Such inbred attitudes have a long history directly related to the Caribbean's colonial heritage, but after one hundred and fifty years of (legislated) emancipation our education system ought to have done more to eradicate such repressive thinking and inject a fresh approach to work and to life, unfettered by the past. That this situation persists inspite of efforts to expand the education systems of

the region, suggests that the skills and attitudes generated by the formal education system are incompatible with the actual requirements for development.

The problem of unemployment in the Caribbean, goes beyond the idea of educating and training our youngsters for work. It is a problem which hinges upon inappropriate values and attitudes among school leavers many of whom harbour mis-guided ideas about dependency and domination. John E. Fobes, Deputy Director General of Unesco suggests that one should never speak of problems without also setting forth the possibilities of dissolving those problems.⁵ One possibility for solving the unemployment problem among Caribbean youth is to educate them in the principles of self-help and self-reliance. Educational strategy for self-reliance offers a new and exciting challenge to educators in the Leeward Islands. Solutions may not be found easily but in the search, hopefully a diversity of new approaches may be promoted out of which an effective strategy might evolve, to foster endogenous development.

On this subject, Julius Nyerere in Freedom and Development argues that people cannot be developed. They can only develop themselves, for while it is possible for an outsider to build a man's house, an outsider cannot give a man pride and confidence in himself as a human being. Those things a man has to create in himself by his own actions. He develops himself by what he does; by making his own decisions, by increasing his understanding of what he is doing and why; by increasing his own knowledge and ability, and by his own full participation - an an equal - in the life of the community he lives in. A man is developing himself, for example, when he grows or earns enough to provide decent conditions for himself and his family; he is not being developed if someone gives him these things⁶. If education is to foster development of

the Caribbean, it must emphasize the concept of self-reliance, and Caribbean youths must be convinced through the education they receive that solutions to development problems must emanate from within the Caribbean.

The problems relative to education and endogenous development which this study brings to light will be solved only by astute planning, calculated and concerted effort on the part of educational planners and administrators in the Leeward Islands. Some of these problems are common to all three territories. These will be discussed in that context. Problems peculiar to any single territory will be specifically identified.

In all three territories, the absence of text books, reference books and other teaching aids greatly reduces available class-room teaching time, as teachers are forced to spend much of their time writing and transcribing material on black boards, particularly at the primary level. The situation is equally critical at the secondary level, where the lack of textbooks, reference libraries, laboratories and workshops puts students at a disadvantage and renders it difficult and in some subjects impossible, for them to satisfactorily complete syllabi for regional and external examinations. Providing an adequate supply of text and reference books is particularly essential when one considers the limited reading material available locally in all three territories. Ideally, local production of text and reference material is desirable, but financial constraints would suggest a regional as opposed to a territorial approach to Caribbean educational material production.

Teacher training at all levels must be improved in all three territories. There is urgent need to identify and implement alternative methods of training to upgrade the

quality of the teaching staff at all levels. Coupled with efforts to improve the professional capabilities of teachers, must be a thrust towards improving attitudes of those who elect to enter this vital profession. Teaching must not be regarded as 'just another job'. Some measure of commitment to the high ideals of the profession should serve as part of the criteria for recruitment into the profession. In the context of the above, the following recommendations are offered:

- a. Expand facilities at the Teacher Training Colleges in St. Kitts and Antigua to include comprehensive libraries, more reference material, teaching aids, laboratories and teaching resource facilities. (Note: Although the need for teaching resource facilities has been recognized in the manifesto of the ruling People's Action Movement of St. Kitts, no allowance has been made in that document for similar facilities to be established on the island of Nevis. This apparent over-sight should be rectified.)⁷
- b. Establish a Teacher Training College complex in Montserrat with adequate facilities to meet the urgent training needs of teachers on that island.
- c. Alternatively look into the feasibility of having teachers from Montserrat trained at the established facilities in Antigua or St. Kitts. Costs versus benefits should figure prominently in such a study.
- d. Training for secondary school teachers should emphasize specialization in subject areas for which there is obvious need and for which aptitude is shown by participants. (Note: Successful re-orientation of Teacher Training programmes

would require the assistance of skilled specialists in various fields. For this, technical assistance from outside the area, is recommended. Regional sources should be tapped where appropriate).

- e. Expand facilities at the Technical Colleges in all three territories to allow for greater variety in the practical skills being taught. Curricula for technical and vocational education should be upgraded to provide the skills required in industry and to meet the islands' development needs.
- f. Increase opportunities for self-employment by providing more of the services required by small businesses e.g. small business management skills, accounting principles, secretarial and other business related skills.
- g. Curriculum diversification should embrace the introduction of development studies at all levels to include civics, and an introduction to social, economic and political problems of the Caribbean. The intention is to develop commitment in pupils and to equip them with the knowledge and skill they will need if they themselves are to tackle the problems of development.
- h. To foster closer relationships between the school and the community the following suggestions, are offered:
 - 1. Formulate on-going public relations programs both to keep the public informed about school activities and to listen to the needs/opinions of the public.

2. Conduct surveys and public opinion polls every few years to update Education Departments on public opinions and attitudes regarding the school.
 - i. Education in agriculture should be enhanced by making more land available for school gardens and for agriculture and livestock education and training. External assistance must be secured to provide scholarships and bursaries for the training of teachers/specialists in agriculture, and in technical and vocational subjects.
 - j. More emphasis needs to be placed on upgrading the competency and intellect of the adults in the population by launching aggressive adult-education campaigns and by conducting on the job training.
 - k. Serious consideration should be given to introducing co-operatives into the curriculum of the formal education system at all levels to develop positive attitudes towards group work, to motivate understanding of and practical appreciation for sharing and for the value of co-operative actions.
 - l. More effective use should be made of the communications media - radio, television and newspaper to enrich learning and to provide lessons and experiences which cannot be conveyed in the classroom. (Note: The economic conditions which prevail in the Leeward Islands, preclude the luxury of using television and radio solely for entertainment purposes).

- m. Non-formal (out-of-school) education should be expanded and greater emphasis placed on work-oriented education and training - particularly on pre-employment training for school leavers in areas where there is a demand for manpower in the economy.
- n. Educational strategies for development in other developing areas like Africa and Latin America should be critically examined and the aspects of such strategies which yield positive results should be carefully considered before adaptation. Factors like local (socio-economic) conditions, stage of development and the like must be taken into consideration.

The reforms recommended, embrace the idea of adapting the educational systems of the Leeward Islands to the exigencies of today's society. This entails designing, organizing and promoting academic education, vocational and technical education and training in such a way as to make them integral parts of a life-long educational process. Implementation of such innovations is, however, a complex process which requires competent personnel, experienced in their craft. It requires as well, ample support staff, appropriate tools, adequate financing and time within which to bring these changes about. Above all; it requires meticulous planning in the overall context of the country's development objectives.

Governments in the Leeward islands must take pains to ensure that expansion of the educational systems is matched by expansion in other areas of the economy and with the capacity of the economy to absorb educated workers. Economic growth is not

however, always easy to predict or to control. Caution is therefore advised. Philip Coombs (1976) offers a realistic appraisal of the phenomenon when he warns that development is a slow process which requires long and determined efforts even in the best of circumstances. It is not a game for the impatient who demand quick and dramatic results. Progress will occur at different rates in different places; fastest in places where the political leadership is strong and progressive - the type of leadership that fires the whole population with a compelling vision of the future that can be earned with hard effort and sacrifice; it will be slowest in places where political leaders talk big but act small because they fear fundamental change and lack real compassion for the common people. As everyone involved in the highly complex business of social and economic change and development should have learned by now, we must be realistically patient and expect no miracles.⁸

Even though expansion of the educational systems in Leeward Islands might be generally considered to be appropriate policy, as the literature relative to education and development in Africa, Latin America and other developing countries suggest, the precise relationship between education and economic development is at best unclear. For whereas large sums of money have been put into expansion of education systems in countries like Nigeria, Kenya, Tanzania and other African and Latin American countries, it can hardly be stated with any degree of certainty that education per se, has been responsible for economic development in any of these countries. In fact, it might be safer to assume that expansion of education in these countries came about as a result of economic development. It is true that education generally increases the productive capacity of individuals and society, but it is difficult to determine the extent to which education contributes to such development since many other factors

are involved in the process. Thompson (1981) suggests that the role of education in development might be more readily associated with the preparation of citizens to take an active part in the industrial and social improvement of their way of life.⁹

Within this framework, educational planners and policy-makers in the Leeward Islands (and indeed in the rest of the Caribbean) should opt for a comprehensive strategy of development embracing not only formal education, but to a greater extent non-formal education and vocational training, job-creation initiatives to combat un-employment especially among the youths co-operative agro-based industries and any other potentially viable alternatives to meet the countries' pressing development needs. Effort must be made to ensure that the development thrust is pursued simultaneously in all the vital areas of the economy which contribute to the development process.

In the Leeward Islands, as in many other developing areas, the political process often thwarts the best intentions of policy planners, but in order to be effective, educational planning for development must be free of unwarranted involvement by politicians far removed from the classroom situation and must be entrusted to capable educators, development planners and astute administrators who are more likely to be in a position to initiate positive change despite the nebulous relationship between education and economic development. The importance of the political process must not, however, be overlooked since it is this process which could be most instrumental in helping people in developing societies determine the kind of societies they want to build, the direction they would like development to take and the methods they should adopt to achieve their objectives. For it is only when the underlying philosophy of the society is clearly defined and articulated can educators and policy planners develop the type of educational and economic strategy that can best meet their objectives.

Chapter 6 - Summary and conclusions

Notes and References

1. See appendices VIII, XXI and XXXII-XXXIV
2. Nicholas Sanchez and Alan R. Waters: Educational Reform for Economic Development. Comparative Education Review; February, 1974.
3. A.R. Thompson, Education and Development in Africa, op. cit. p. 263.
4. See Report: The Caribbean Community in the 1980's: The Caribbean Community Secretariat, Georgetown, Guyana (1981) Publishers.
5. John E. Fobes: Quoted in 'Youth and Work' Report, Recommendations and documents of a European Regional Meeting, Venice, 7-11 November 1977, Unesco 1979.
6. Julius K. Nyerere; Freedom and Development (Dar es Salaam: Oxford University Press, 1973) p. 60.
7. The Manifesto of the People's Action Movement of St. Kitts. 1984.
8. Philip H. Coombs: Non-formal Education: Myths, Realities and Opportunities. Comparative Education Review; October 1976, p. 293.
9. A.R. Thompson, Education and Development in Africa op. cit.

APPENDICES

ST. KITTS-NEVIS

APPENDIX 1

Population Trends - Estimates and Projections

YEAR	POPULATION	YEAR	POPULATION
1970	44,9001	1980	44,4002
1971	44,850	1981	44,700
1972	44,800	1982	45,000
1973	44,750	1983	45,350
1974	44,700	1984	45,650
1975	44,650	1985	46,000
1976	44,600	1986	46,300
1977	44,550	1987	46,600
1978	44,500	1988	46,950
1979	44,450	1989	47,300

Sources: Statistical Office Planning Unit, Premier's Office,
Basseterre, St. Christopher-Nevis, May 1981

1 1970 to 1980 data are based on census data

2 1981 to 1989 data are based on assumed growth rate of .7 percent per annum.

APPENDIX II

ST. KITTS-NEVIS

Overall Educational Statistics, 1976/77-1980/81

	1976/77		1977/78		1978/79		1979/80		1980/81	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1. Enrollments										
Primary Education	8,377	4,135	5,866	2,850	6,703	3,501	6,855	3,436	6,767	3,396
Secondary Education	2,139	1,047	7002	996	2,271	988	2,109	990	1,672	602
All ages	4,770	2,809	4,651	2,361	4,387	2,306	4,496	2,249	4,226	2,053
Secondary High	-	-	70	53	97	73	98	73	64	50
Teacher's College	107	41	89	29	151	39	160	33	127	41
2. Teachers										
Primary & All Ages	307	217	313	236	325	213	331	244	311	229
Secondary Education	245	66	253	-	257	126	254	134	260	129
Teacher's College ³	-	-	10	-	11	-	13	-	14	-
Technical College	22	4	20	4	23	4	23	4	19	5

Source: Education Department, Ministry of Education, Health & Social Affairs

- Notes:
1. Not all Nevis data are available
 2. Estimated
 3. Including Part-time teachers

St. Kitts-Nevis

Education System, 1978/1979

Age-Range	ST. KITTS			NEVIS		
	Schools	Enrolment	Teachers	Schools	Enrolment	Teachers
Primary Education						
5-18	2	339	13	1	148	6
5-12	12	4,086	151	7	1,281	57
5-16	5	1,648	77	2	467	21
Total	19	6,073	241	10	1,896	84
Private Schools						
5-12	5	436	-	3	263	-
Secondary Educ.						
12-16	1	1,445	59	-	-	-
12-17	2	1,356	76	2	1,139	65
12-19	1	836	54	13	-	-
TOTAL	4	3,637	189	2	1,139	65
Private Schools						
12-17	2	186	-	-	-	-

Source: Educational statistics 1978/79, Education Department, Ministry of Education, Health & Social Affairs.

Notes: 1/ From the school year 1980/81, the Charlestown Secondary School also provides sixth form courses.

APPENDIX IV

ST. KITTS/NEVIS

Data on Primary School Teachers, 1978/79

AGE AND SEX	Under 21	21-25	26-30	31-35	36-40	Over 40	Female Total	TOTAL
St. Kitts	67	73	52	14	5	26	161	237
Nevis	12	31	23	5	7	23	76	101
TOTAL	79	104	75	19	12	49	237	338

Years of Experience	Under 3	3-5	6-8	9-11	12-14	15-17	Over 17	TOTAL
St. Kitts	94	40	37	32	11	2	31	247
Nevis	18	14	18	4	2	3	24	83
TOTAL	112	54	55	36	13	5	55	330

Academic Background	GCE 'O' PASSES							GCE 'A' PASSES			TOTAL			
	0	1	2	3	4	5	6	7+	1	2		3		
St. Kitts	12	3	14	45	70	33	16	3	196	2	-	1	3	199
Nevis	11	3	1	5	21	10	13	4	68	-	-	-	-	68
TOTAL	23	6	15	50	91	43	29	7	264	2	-	1	3	267

CATEGORIES	HEAD TEACHERS	TRAINED	UNTRAINED	SUBSTITUTE	TOTAL
St. Kitts	19	72	69	83	243
Nevis	10	43	19	12	84
TOTALS	29	115	88	95	327

SOURCE: Educational Statistics 1978/79, Education Department, Ministry of Education, Health and Social Affairs.

Notes: 1 Differences in totals are found in the sources used and may be due to different terms of the same school year.

ST. KITTS/NEVIS

APPENDIX V

Data on Secondary School Teachers, 1978/79

Category of Teacher	St. Kitts	Nevis	Total
Deputy Head	2	-	2
Graduates	28	8	36
Specialists	5	1	6
Trained	58	31	89
Untrained	69	17	86
Substitutes	17	8	25
Foreigners	10	2	12
TOTAL	189	67	256
Years of Experience			
Below 3	63	15	78
3-5	42	17	59
6-8	40	11	51
9-11	10	11	21
12-14	11	5	16
15-17	8	-	8
18-20	4	2	6
Over 20	7	4	11
TOTAL	185	65	250
SEX			
Female	93	33	126
Male	92	32	124
TOTAL	185	65	250

Source: Educational Statistics, 1978/79, Education Department, Ministry of Education, Health and Social Affairs.

Notes: Differences in totals are found in the sources and may be due to different terms of the same school year.

Breakdown of Trained, Untrained and

APPENDIX VI

Graduate Teachers

<u>Public Primary</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Trained Teachers	115	143	131	140
% of Primary Teacher Employment	35.4%	43.2%	39.9%	47.5%
Untrained Teachers	88	73	50	30
% of Primary Teacher Employment	27.0%	22.1%	15.2%	10.2%
<u>Public Secondary</u>				
Trained Teachers	89	94	96	84
% of Secondary Teacher Employment	35.0%	37.0%	36.2%	31.7%
Untrained Teachers	86	78	57	36
% of Secondary Teacher Employment	33.9%	30.7%	21.5%	13.6%
Graduate Teachers	36	33	46	40
% of Secondary Teacher Employment	14.2%	13.0%	17.4%	15.1%

Source: Department of Education

St. Kitts Nevis

Teacher Employment - Schools/Colleges

APPENDIX VII

<u>Teachers</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Public Primary	301	325	331	328	295
Private Schools	16	68	56	n.a.	
Public Secondary	257	254	254	265	265
Technical College	20	22	22	19	18
Teachers' College	10	10	10	11	10

Number of Schools/Colleges

<u>Number of Schools</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Public Primary	29	29	28	28	27
Private Schools	4	15	10	n.a.	6
Public Secondary	6	6	6	6	6
Technical College	1	1	1	1	1
Teachers' College	1	1	1	1	1

Source: Department of Education - St. Kitts-Nevis

Examination Results (1977-1981)

APPENDIX VIII

St. Kitts-Nevis

<u>Cambridge</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
'O' Level Subjects Taken	1,602	1,639	932	1,204	1,497
'O' Level Subject Passes	810	710	392	480	594
Percentage Passes	50.6%	43.3%	42.1%	39.9%	39.7%
'A' Level Subjects Taken	74	68	68	59	82
'A' Level Subject Passes	20	28	49	33	26
Percentage Passes	27.0%	41.2%	72.1%	55.9%	31.7%

London

(January Exams)

'O' Level Subjects taken	223	142	232	261	216
'O' Level Subject Passes	87	55	55	65	61
Percentage Passes	39.0%	38.7%	23.7%	24.9%	28.2%
'A' Level Subjects Taken	14	12	8	2	4
'A' Level Subject Passes	1	0	1	0	1
Percentage Passes	7.1%	0%	12.5%	0%	25%

(June Exams)

'O' Level Subjects Taken	335	394	313	145	107
Percentage Passes	29.0%	28.2%	40.0%	21.4%	29.0%
'A' Level Subjects Taken	26	20	9	21	8
'A' Level Subject Passes	4	5	3	4	1
Percentage Passes	15.4%	25%	33.3%	60.0%	12.5%

CXC Exams

Subjects Taken			851	727	707
Subject Passes			310	337	365
Percentage Passes			36.4%	46.6%	51.6%

CSE Exams

Subjects Taken	266	678	1,066	982	1,214
Subject Passes	250	596	965	916	1,107
Percentage Passes	94.0%	87.9%	90.5%	93.3%	91.2%

Source: Department of Education - St. Kitts-Nevis

ST. KITTS/NEVIS : Financial Summary (EC \$ Millions) APPENDIX IX

	Actual 1977	Actual 1978	Actual 1979	Est. 1980
<u>Recurrent and Non-Recurrent Revenue</u>				
(i) Local Revenue Expenditure	27.6	34.6	40.3	46.9
(ii) Local Expenditure	28.5	32.5	38.4	46.9
Surplus (+) Deficit (-)	- .9	+2.1	+1.9	+ .7
<u>Capital Estimates (Rev.)</u>				
(i) Loans	1.13	.10	6.9	20.8
(ii) Development Aid	2.10	2.18	1.9	12.8
(iii) Other Grants	-	4.08	3.3	14.1
(iv) Capital Revenue	.61	.52	.16	1.3
<u>Total Expenditure</u>				
(i) Revenue	1.00	1.34	.81	1.3
(ii) Loans	1.89	.19	6.4	20.8
(iii) Development	1.34	2.22	2.01	-12.8
(iv) Other Grants	-	1.34	2.22	14.1
<hr/>				
<u>TOTAL</u>	4.23	5.09	11.44	49.0
Surplus (+) Deficit (-)	+1.39	-1.79	+10.82	0.0

Source: Ministry of Finance, St. Kitts/Nevis

Recurrent and Non-recurrent Expenditureon Education (1977-1982)St. Kitts-Nevis

<u>Year</u>	<u>Govt. Recurrent and Non-recurrent Expenditure on Education (EC \$000)</u>	<u>Total Govt. Recurrent and Non-recurrent Expenditure (EC \$000)</u>	<u>Education Expen- diture as a % of Total Govt. Expenditure %</u>
1977	4,001	28,575	14.0
1978	5,361	32,491	16.5
1979	6,208	38,430	16.1
1980	6,324	48,137	13.1
1981 (Est)	8,605	56,668	15.2
1982 (Est)	9,839	60,507	16.3

Source: Government Estimates - St. Kitts-Nevis

*Note: These figures include recurrent as well as non-recurrent expenditure

APPENDIX XII

ST. KITTS/NEVIS: Sectorial Origin of Gross domestic Product 1977/1980EC \$ Million - 1977 Prices)

	1977	1978	1979	1980
<u>AGRICULTURE</u>	<u>22.6</u>	<u>19.5</u>	<u>18.3</u>	<u>17.1</u>
Sugar Cane	8.6	6.9	6.3	5.9
Sugar & Molasses	8.6	7.3	6.7	5.7
Other Agriculture	5.4	5.3	5.3	5.5
<u>MINING AND QUARRYING</u>	<u>0.2</u>	<u>0.3</u>	<u>0.4</u>	<u>0.4</u>
<u>MANUFACTURING</u>	<u>3.5</u>	<u>3.8</u>	<u>4.5</u>	<u>5.0</u>
<u>CONSTRUCTION</u>	<u>4.6</u>	<u>4.4</u>	<u>5.2</u>	<u>5.9</u>
<u>SERVICES</u>	<u>34.0</u>	<u>37.9</u>	<u>40.7</u>	<u>41.1</u>
Commerce	6.2	6.2	6.6	6.6
Tourism	1.7	3.0	3.6	3.5
Transportation & Communications	5.7	5.6	5.8	6.0
Housing	5.3	5.5	5.5	5.5
Financial Services	4.2	4.6	5.0	5.0
Electricity and Water	0.7	0.8	0.9	0.8
Government	9.3	11.3	12.5	12.9
Other Services	0.9	0.9	0.8	0.8
<u>G.D.P. at Factor Cost</u>	<u>64.9</u>	<u>65.9</u>	<u>69.1</u>	<u>69.5</u>

Source: Economic Memorandum on St. Kitts/Nevis, World Bank, Report No. 3396 CRG, May 18, 1981.

ST. KITTS-NEVIS

APPENDIX XIII

Employment Trends - 1970-1980

	1970	1975	1980 Estimates
Agriculture, Forestry, Fishing	4,195	4,701	4,558
Manufacturing	1,265	2,138	3,026
Construction	170	541	600
Utilities	224	264	272
Trade and Hotels	1,399	1,637	1,690
Transportation and Communications	567	-	-
Services	3,083	3,912	3,484
Other - Not Stated	352	-	-
Total Employment	11,255	13,200	13,630

Source: 1970 Population Census, Statistical Office, Planning Unit - Basseterre.

- Notes: (a) Total employment derived from estimated mid-year population and application of ratios from 1970 census.
- (b) Distribution by industry group based partly on Ministry of labour estimates (Annual Reports for 1975 and 1978) and partly on 1970 census.

ANTIGUA

NUMBER OF EDUCATIONAL INSTITUTIONS

APPENDIX XIV

(1976 - 1980)

<u>TYPE OF INSTITUTION</u>	1976	1977	1978 ^P	1979 ^P	1980 ^P
<u>PRIMARY SCHOOLS</u>					
Government	31	33	31	31	31
Private	18	26	15 ¹	15 ¹	13 ¹
TOTAL	49	59	46	46	44
<u>SECONDARY SCHOOLS</u>					
Government	9	9	9	9	9
Private	9	9	9	9	9
TOTAL	18	18	18	18	18
<u>SPECIAL SCHOOLS</u>					
Mentally retarded	1	1	1	1	1
Red Cross - Deaf	1	1	1	1	1
School for Blind	1	1	1	1	1
TOTAL	18	18	18	18	18
<u>TECHNICAL AND VOCATIONAL ²</u>					
<u>COLLEGES</u>	2	2	1	1	1

SOURCE: MINISTRY OF EDUCATION - ANTIGUA

¹ Does not include pre-primary schools

² Technical & vocational college merged with the teachers college in 1978.

P = Provisional

Enrolment Distribution by Public and Private Education, 1976/77-1977/78

	Enrolment 1976/77				Enrolment 1977/78				Total			
	Pre-Primary	Primary	Post-Primary	Sec-ondary	Coll-lege	Total	Pre-Primary	Prim-ary		Post-Primary	Sec-ondary	College
Pre-Primary Public	579	-	-	-	-	579	827	-	-	-	-	827
Pre-Primary + Public Private	241	465	-	-	-	706	184	563	-	-	-	747
Primary Public	-	2,782	-	-	-	2,782	-	2,676	-	-	-	2,676
Primary Private	-	1,502	-	-	-	1,502	-	1,506	-	-	-	1,506
Primary + Post-Primary Public	-	4,529	1,527	-	-	6,056	-	4,326	1,484	-	-	5,810
Primary + Post-Primary Private	-	-	-	-	-	-	-	-	-	-	-	-
Primary + Secondary Public	-	334	-	424	-	758	-	297	-	442	-	739
Primary + Secondary Private	-	1,300	-	995	-	2,295	-	1,271	-	727	-	1,998
Secondary Public	-	-	-	3,337	-	3,337	-	-	-	3,287	-	3,287
Secondary Private	-	-	-	402	-	402	-	-	-	481	-	481
Tech. & Voc. College Public	-	-	-	-	153	153	-	-	-	-	153	153
Teacher Training College Public	-	-	-	-	89	89	-	-	-	-	89	89
Sixth-Form College Public	-	-	-	-	-	-	-	-	-	-	-	-
Total	820	10,912	1,527	5,158	242	18,659	1,011	10,639	1,484	4,937	242	18,313
% Private	100	30	-	27	-	-	100	31	-	24	-	-

Source: Educational Statistics, 1976-1978, Ministry of Education, Health and Culture.

ANTIGUA

APPENDIX XVI

NUMBER OF STUDENTS BY AGE1976 - 1980

<u>AGE</u>	<u>1976</u>	<u>1977</u>	<u>1978^P</u>	<u>1979^P</u>	<u>1980^P</u>
UNDER 5	820	314	796	842	493
5	1259	1024	908	924	813
6	1503	1436	1249	1327	1063
7	1521	1463	1231	1581	1298
8	1565	1461	1279	1511	1289
9	1487	1614	1321	1342	1132
10	1455	1599	1333	1432	1190
11	1500	1498	1203	1694	1186
12	1497	1488	1599	1299	1331
13	1327	1247	1232	1326	1039
14	1319	1341	1258	1009	1144
15	1235	1211	982	833	864
16	1153	1048	670	655	664
17	869	735	532	431	421
18	407	433	280	228	135
19	218	130	83	72	35
20 AND OVER	-	17	8	9	2
<u>NOT STATED</u>	<u>-</u>	<u>-</u>	<u>1096</u>	<u>5</u>	<u>1087</u>
<u>TOTAL</u>	<u>19135</u>	<u>18059</u>	<u>17060</u>	<u>16520</u>	<u>15186</u>

SOURCE: MINISTRY OF EDUCATION± Antigua Statistical Year Books

P = Provisional

ANTIGUA

APPENDIX XVII

NUMBER OF TEACHERS BY TYPE OF SCHOOL AND SEX

1976 - 1980

TYPE OF SCHOOL	<u>1976</u>		<u>1977</u>		<u>1978^P</u>		<u>1979^P</u>		<u>1980^P</u>	
	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>
PRIMARY	56	352	56	304	56	334	79	354	79	352
SECONDARY	107	186	75	116	83	149	133	208	111	207
TOTAL	163	538	131	420	139	483	212	562	190	559

SOURCE: MINISTRY OF EDUCATION - ANTIGUA

P = Provisional

NUMBER OF TEACHERS BY TYPE OF SCHOOL

AGE GROUP AND SEX 1980^P

	<u>PRIMARY AND POST-PRIMARY</u>			<u>SECONDARY</u>		
	<u>MALE</u>	<u>FEMALE</u>	<u>TOTAL</u>	<u>MALE</u>	<u>FEMALE</u>	<u>TOTAL</u>
UNDER 20	4	8	12	1	1	2
20 - 24	12	51	63	18	19	37
25 - 29	14	59	73	16	15	31
30 - 34	13	44	57	9	11	20
35 - 39	-	15	15	4	7	11
40 - 44	-	13	13	-	2	2
45 - 49	1	12	13	-	4	4
50 - 54	3	13	16	-	1	1
55 AND OVER	-	-	-	-	2	2
NOT STATED	32	137	169	63	145	208
TOTAL	79	352	431	111	207	318

SOURCE: MINISTRY OF EDUCATION - ANTIGUA

P = Provisional

ANTIGUA

APPENDIX XVIII

NUMBER OF TEACHERS BY QUALIFICATION, TYPE OF SCHOOL
AND PUPIL/TEACHER RATIO 1980^P

TYPE OF SCHOOL	TOTAL PUPILS	TEACHERS			PUPIL/TEACHER RATIO		
		TRAINED	UNTRAINED	TOTAL ¹	TRAINED	UNTRAINED	TOTAL
PRIMARY AND POST PRIMARY	10660	246	123	431	43.3	86.7	24.7
SECONDARY	4526	128	107	318	35.4	42.3	14.2
TOTAL	15186	374	230	749	40.6	66.0	20.3

SOURCE: MINISTRY OF EDUCATION - ANTIGUA

¹ Including teachers whose degree of training is not stated

P = Provisional

NUMBER OF STUDENTS BY TYPE OF SCHOOL

1976 - 1980

TYPE OF SCHOOL	1976	1977	1978 ^P	1979 ^P	1980 ^P
<u>PRIMARY AND POST PRIMARY</u>					
Government	9374	9624	8783	8471	7798
Private	4321	3661	3340	3032	2862
TOTAL	13695	13285	12123	11503	10660
<u>SECONDARY</u>					
Government	3532	3437	3729	3922	3761
Private	1908	1337	1208	1095	765
TOTAL	5440	4774	4937	5017	4526
GRAND TOTAL	19135	18059	17060	16520	15186

SOURCE: MINISTRY OF EDUCATION - ANTIGUA

P = Provisional

ANTIGUA

APPENDIX XIX.

Evolution of Teaching Staff at Primary and Secondary Levels¹
1974/75-1977/78

	1974/75	1975/76	1976/77	1977/78
<u>Primary</u>	<u>460</u>	<u>469</u>	<u>475</u>	<u>480</u>
Public	352	353	357	365
Private	108	116	118	115
<u>Secondary</u>	<u>196</u>	<u>231</u>	<u>277</u>	<u>289</u>
Public	140	172	210	231
Private ²	56	59	67	58
<u>Total</u>	<u>656</u>	<u>700</u>	<u>752</u>	<u>769</u>
Public	492	525	567	596
Private	164	175	185	173

Source: Educational Statistics, 1976-1978, Ministry of Education, Health and Culture.

Notes: 1 The sources do not coincide on the data for this table and those for teachers' qualifications.

2 Including a few schools with primary grades counted under primary.

ANTIGUA

APPENDIX XX

Teachers' Qualifications in Public Schools, 1975/76 - 1977/78

Level of Teaching	Qualification of Teachers					
	Number of Teachers		Degree		Non-Degree	
	Total	Female	Trained	Un-trained	Trained	Un-trained
<u>1975/76</u>	<u>536</u>	n.a.	<u>38</u>	<u>22</u>	<u>249</u>	<u>227</u>
Primary	108	n.a.	-	-	56	52
Primary and Post-Primary	232	n.a.	-	-	117	115
Primary and Secondary	27	n.a.	2	5	12	8
Secondary Grades	126	n.a.	15	17	45	49
State College	37	n.a.	18	-	19	-
Special Education	6	n.a.	3	-	-	3
<u>1976/77</u>	<u>600</u>	<u>437</u>	<u>35</u>	<u>32</u>	<u>331</u>	<u>202</u>
Primary Grades	108	100	-	-	76	32
Primary and Post-Primary	223	179	-	-	142	81
Primary and Secondary	58	38	5	10	26	17
Secondary Grades	178	104	25	22	73	58
State College	25	10	4	-	11	10
Special Education	8	6	1	-	3	4
<u>1977/78</u>						
Primary Grades	111	100	-	-	83	28
Primary and Post-Primary	236	186	-	-	157	79
Primary and Secondary	48	31	4	9	22	13
Secondary Grades	203	122	22	29	101	51
State College	n.a.	n.a.	-	-	-	-
Special Education	n.a.	n.a.	-	-	-	-

Source: Educational Statistics, 1976-1978, Ministry of Education, Health and Culture.

EXAMINATION RESULTS - ANTIGUA APPENDIX XXI

1976 - 1981

<u>TYPE OF EXAMINATION</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
<u>PRIMARY</u>						
Entered	911	918	1128	1075	1118	840
Passed	290	192	384	334	344	438
<u>POST PRIMARY</u>						
Entered	445	347	330	284	276	326
Passed	72	72	27	71	51	109
<u>LONDON CHAMBER OF COMMERCE AND INDUSTRY</u>						
Elementary						
Entered	181	378	403	329	330	396
Passed	56	145	100	106	155	229
	31%	38%	25%	32%	47%	58%
Intermediate						
Entered	90	156	78	146	141	240
Passed	30	53	29	58	51	99
Higher School						
Entered	3	21	10	10	17	11
Passed	1	5		2	5	5
<u>LONDON C.G.E.</u>						
Ordinary Level						
Entered	1645	1327	1582	1133	1364	1067
Passed	334	24	354	219	235	89
	20%	2%	22%	19%	17%	8%
Advanced Level						
Entered	83	100	55	24	21	23
Passed	13	15	6	3	7	7
	15%	15%	11%	12%	33%	30%
<u>CAMBRIDGE C.G.E.</u>						
Ordinary Level						
Entered	2162	2488	2092	2250	2238	1950
Passed	708	855	815	929	995	714
	33%	34%	39%	41%	44%	37%
Advanced Level						
Entered	63	100	82	51	88	82
Passed	14	20	16	14	32	51
	22%	20%	20%	27%	36%	62%

SOURCE: MINISTRY OF EDUCATION - Antigua
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ANTIGUA

APPENDIX XXII

Time Distribution for Teacher Training, 1980/81

	First Year	Second Year
English	3	2
Language Arts	2	3
Social Studies	2	3
Geography	2	1
History	1	-
Mathematics	3	3
General Sciences	3	3
Art	1	1
Singing	1	1
Music	1	1
Physical Education	1	1
Craft	1	1
Home Economics	1	1
1 to 3 periods of optional subjects elected among: Literature, Geography, Craft, Home Economics	(1-3)	(1-3)
Education	2	3
Infant Education	1	1
Guidance and Counselling	1	1
Research Methods	1	1
Practice Teaching (20 weeks per year)	-	-
Individual Studies	-	2
Total	27 + (1-3)	29 + (1-3)

Source: Teachers Department, Antigua State College.

ANTIGUA

APPENDIX XXIII

Sectoral Origin of Gross Domestic Produce
at Current Factor Cost, 1976-79

(EC\$ million)

	1976	1977	1978	1979
1. Agriculture				
1.1 Agriculture	1.3	0.8	1.2	1.2
1.2 Livestock	6.2	7.3	7.9	8.5
1.3 Forestry and Logging	-	-	-	-
1.4 Fishing	3.3	3.5	3.7	3.8
1.5 total	<u>10.9</u>	<u>11.6</u>	<u>12.8</u>	<u>13.5</u>
2. Mining and Quarrying	1.1	1.0	1.2	1.6
3. Manufacturing	5.1	6.9	9.3	13.3
4. Construction	10.4	10.9	11.0	13.5
5. Electricity and Water	1.3	2.1	3.6	4.9
6. Transport and Communication				
6.1 Road Transport	7.3	8.3	9.2	11.0
6.2 Sea Transport	1.0	1.7	3.1	3.9
6.3 Air Transport	8.2	9.1	10.1	11.7
6.4 Communications	5.5	6.8	7.3	6.3
6.5 Total	<u>22.0</u>	<u>26.0</u>	<u>29.7</u>	<u>32.9</u>
7. Trade	13.0	17.1	19.2	24.3
8. Hotels and Restaurants	14.1	18.5	22.2	29.1
9. Banks and Insurance	7.5	9.7	10.6	13.1
10. Ownership of Dwellings	16.5	18.4	19.8	23.3
11. Producers of Government Services	16.6	19.4	23.5	26.0
12. Other Services	6.2	6.9	8.4	10.0
13. <u>Less</u> Imputed Banking Service Charges	-5.0	-6.6	-7.1	-8.8
14. GDP at Current Prices	120.0	142.0	164.2	196.7

Source: Economic Memorandum on Antigua, world Bank, May 18, 1981,
Report No. 3403-CRG.

MONTSERRAT

APPENDIX XXIV

Enrolment Evolution, 1971/72 - 1979/80

	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81
<u>Primary Education</u>										
Total enrolment	2,970	2,853	2,752	2,640	2,635	2,356	2,164	2,144	2,116	1,994
Girls Enrolment	1,434	1,384	1,311	1,267	1,261	1,143	1,051	1,042	1,041	-
<u>Secondary Education</u>										
Total Enrolment	-	381	413	499	482	702	831	850	828	921
Girls Enrolment	-	212	233	276	-	376	455	457	414	-

Sources: Government of Montserrat, Statistical Digest, 1979; Ministry of Education

APPENDIX XXV

MONTERRAI

School Enrolment and Staff, 1976/77-1979/80

	1976/77			1977/78			1978/79			1979/80		
	Enrolment	Fem-ale	Sch-ool	Enrolment	Fem-ale	Sch-ool	Enrolment	Fem-ale	Sch-ool	Enrolment	Fem-ale	Sch-ool
I. Primary Schools	2,356	1,143	16	2,164	1,051	16	2,116	1,042	16	2,116	1,041	16
A. Government Schools	2,011	979	12	1,830	887	12	1,743	854	12	1,707	841	12
All-Age Schools	1,133	336	3	933	416	2	416	183	2			
Infants/Junior Schools	865	434	6	1,693	856	9	1,309	660	9			
Infants Schools	13	9	1	17	5	1	18	11	1			
B. Government Aided Schools	242	113	2	236	111	2	298	139	2	304	149	2
C. Unaided Schools	103	51	2	98	53	2	103	49	2	105	51	2
II. Secondary - Junior Secondary	391	180	2	479	224	2	495	222	2	480	206	2
Secondary School	311	196	1	352	231	1	355	235	1	348	208	1
III. Post-Secondary Technical College	62	23	1	56	24	1	55	23	1	59	27	1
Total	2,120	1,033	23	3,051	1,499	30	3,049	1,499	30	3,003	1,499	30

Source: Statistics Office, Statistical Digest, 1979, and additional information of the Ministry of Education.

MONTERRAT APPENDIX XXVI

Distribution of School Enrolment by Grades, 1979/80

	Number	Grades	Total Enrolment	Girls enrolment
A. Government Schools				
<u>Primary Schools</u>				
	12		<u>1,707</u>	<u>841</u>
		Infant 1	253	127
		Infant 2	207	101
		Junior 1	236	114
		Junior 2	232	110
		Junior 3	221	107
		Junior 4	209	100
		Junior 5	265	138
		Senior 1	54	27
		Senior 2	30	17
<u>Secondary Schools</u>				
			<u>828</u>	<u>414</u>
<u>Junior Secondary</u>				
	2	Form I	172)	
		Form II	173)	206
		Form III	135)	
<u>Montserrat Secondary School</u>				
	1	Form I	70	38
		Form II	81	42
		Form III	76	57
		Form IV	46	26
		Form V	67	39
		Form VI	8	6
B. Government-aided Schools				
<u>Primary Schools</u>				
	8		<u>304</u>	<u>149</u>
		Infant 1	50	23
		Infant 2	45	22
		Junior 1	48	26
		Junior 2	43	16
		Junior 3	44	22
		Junior 4	34	17
		Junior 5	5	2
		Senior 1	14	8
		Senior 2	8	3
		Senior 3	13	10
C. Unaided Schools				
<u>Primary Schools</u>				
			<u>105</u>	<u>51</u>
		Infant 1	24	9
		Infant 2	18	9
		Junior 1	13	6
		Junior 2	17	10
		Junior 3	9	1
		Junior 4	15	9
	244	Junior 5	9	7

MONTSERRAT

APPENDIX XXVII

Weekly Time Distribution (Minutes) in Primary Schools, 1980/81¹

	Infants		Junior					Senior	
	1	2	1	2	3	4	5	1	2
Language	465	465	510	255	495	405	300	390	240
Mathematics	150	150	150	360	165	300	375	195	105
Social Studies (General Knowledge/ Current Affairs)	-	-	75	90	75	45	90	105	150
General Science	-	-	30	90	45	45	-	45	210
Health Science	45	45	75	45	120	45	45	45	-
Art	90	90	90	90	90	90	90	45	45
Physical Education	60	60	30	30	45	45	60	75	75
Crafts/Sewing/ Agricultural Science	15	15	45	45	45	45	90	180	255
Miscellaneous (Cleaning/Tables)	30	30	45	45	45	45	45	45	45
Free Activities	45	45	-	-	-	-	-	-	-
Intelligence Tests	-	-	-	-	-	60	30	-	-
Total	900	900	1,050	1,050	1,125	1,125	1,125	1,125	1,125

Source: Bethel Primary School.

Note: ¹ Instruction periods vary between thirty, forty-five and sixty minutes.

MONTERRAT

APPENDIX XXVIII

Weekly Time Distribution (Periods)¹
at the Plymouth Junior Secondary School, 1980/81

	Form I				Form II				Form III ^a			
	E	F	G	H	E	F	G	H	E	F	G	H
English Language	6	6	5	5	4	4	4	4	4	4	3	3
Literature	3	3	3	3	3	3	3	2	3	3	3	2
Reading	1	1	2	2	1	1	1	2	-	-	-	1
Mathematics	6	6	6	6	6	6	6	6	6	6	6	6
General Studies	3	3	3	3	4	4	4	3	4	4	4	4
Social Studies	4	4	4	3	4	4	4	4	6	6	6	6
Health	2	2	2	2	2	2	2	2	2	2	2	2
Physical Education	1	1	1	2	1	1	1	2	-	-	1	1
Art	2	2	2	2	2	2	2	2	2	2	2	2
Guidance	1	1	1	1	1	1	1	1	1	1	1	1
Agriculture (Boys)	2	2	2	2	3	3	3	3	4	4	4	4
Woodwork (Boys)	5	5	5	5	5	5	5	5	5	5	5	5
Handicraft (Boys)	2	2	2	2	2	2	2	2	2	2	2	2
Home Economics (Girls)	4	4	4	4	4	4	4	4	4	4	4	4
Needlework (Girls)	3	3	3	3	3	3	3	3	3	3	3	3
Handicraft (Girls)	2	2	2	2	3	3	3	3	4	4	4	4
Total	38	38	38	38	38	38	38	38	39	39	39	39

Source: Plymouth Junior Secondary School

Note: ¹ Every day carries 7 teaching periods of approximately 40 minutes each.

MONTERRAT

APPENDIX XXIX

Weekly Time Distribution of the Montserrat Secondary Schools, 1980/81

	I	II	III	IV ¹	V ¹	VIA ²	VIB ²
English Language	6	6	5	5	5	-	-
English Literature	-	-	-	5	5	7	7
History	3	3	3	5	5	7	7
Geography	3	3	3	5	5	7	7
French ³	3	3	4	5	5	7	7
Spanish ³	3	3	4	5	5	7	7
Mathematics	6	6	5	5	5	7	7
Sciences	4	4	-	-	-	-	-
Chemistry ⁴	-	-	2	5	5	7	7
Physics ⁴	-	-	2	5	5	7	7
Biology	-	-	2	5	5	7	7
Art	2	2	3	5	5	-	-
Cookery (Girls)	2	2	3	5	5	-	-
Accounts	-	-	-	5	5	-	-
Agriculture (Boys)	3	3	3	-	-	-	-
Research Methods	2	2	-	-	-	-	-
Creative Arts	1	1	-	-	-	-	-
Physical Education	2	2	-	-	-	-	-
General Paper	-	-	-	-	-	3	3
total	35	35	36	35	35	38	38

Source: Montserrat Secondary School

- Notes:
- 1 Compulsory subjects are: English language, history, mathematics, one modern language and one science. Two elective subjects are required.
 - 2 Six subjects conditioned by the choice of area of study up to a maximum of 38 periods per week.
 - 3 One of the two from Form I through V.
 - 4 One of the three in Forms IV and V.

MONTERRAT

APPENDIX XXX

Sectoral Origin of Gross Domestic Product
at Constant Prices (1977-80)
 (in millions of 1977 ECS)

Industry	1977	1978	1979	Prel 1980
Agriculture	1.3	1.3	1.4	1.5
Mining and Quarrying	0.3	0.3	0.4	0.4
Manufacturing	0.5	0.4	0.5	0.6
Construction	3.2	3.5	5.7	3.0
Electricity and Water	0.8	0.8	0.7	0.6
Transportation and Communications	3.1	3.1	3.0	3.6
Wholesale and Retail Trade	3.0	3.0	3.3	3.8
Banking and Insurance	1.61	1.5	1.3	1.3
Hotels, Restaurants and Bars	2.9	2.8	3.0	3.5
Public Administration	3.3	3.1	2.8	2.8
Dwelling Ownership and Real Estate	2.2	2.0	1.7	2.1
Other Services	0.4	0.5	0.6	0.7
GDP at Factor Cost	22.6	22.2	24.4	24.9
Net Indirect Taxes	3.0	3.4	4.6	5.1
GDP at Market price	25.6	25.6	29.0	30.0

Source: World Bank, Economic Memorandum on Montserrat, May 18, 1981
 Report No. 3412-MO

EXAMINATION RESULTS 1980-83

MONTSERAT

<u>CAMBRIDGE O'LEVEL</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
No. of candidates entered	69	63	64	98
No. of subjects offered	146	139	122	153
No. of subjects passed	70	70	68	70
 <u>CXC O'LEVEL</u>				
<u>General</u>				
No. of candidates entered	57	42		
No. of subjects offered	136	99		
No. of subjects passed	82	70		
 <u>LONDON O'LEVEL</u>				
<u>January</u>				
No. of candidates entered	27	26	28	8
No. of subjects offered	33	39	38	11
No. of subjects passed	10	8	11	8
 <u>June</u>				
No. of candidates entered	30	61	22	36
No. of subjects offered	37	74	26	47
No. of subjects passed	6	20	16	16
 <u>CAMBRIDGE A'LEVEL</u>				
No. of candidates entered	1	6	8	17
No. of subjects offered	3	13	20	35
No. of subjects passed	3	6	5	9
 <u>LONDON A'LEVEL (JUNE)</u>				
No. of candidates entered	2	2	-	-
No. of subjects offered	3	2	-	-
No. of subjects passed	3	0	-	-

CAMBRIDGE UNIVERSITY O'LEVEL RESULTS

APPENDIX XXXI

DISTRIBUTION OF CANDIDATES BY NUMBER OF PASSES OBTAINED

Year	Total Candidates	0	1	2	3	4	5	6	7	Average Number of Passes Per Candidate
1960	16	1	1	1	4	5	2	1	1	3.6
1965	36	1	11	6	7	6	3	1	1	2.7
1970	37	4	6	12	8	4	2	0	1	2.4
1971	58	5	14	14	12	9	2	1	1	2.4
1972	56	13	24	8	7	1	2	1	0	1.5
1973	61	16	22	15	3	3	0	0	2	1.4
1974	51	6	16	13	8	7	0	0	1	2.0
1975	46	5	11	6	12	9	1	1	1	2.5
1976	42	6	9	9	11	3	2	0	2	2.3
1977	40	5	6	8	10	6	3	2	0	2.6
1978	35	2	6	7	4	9	1	5	1	3.1
1979	58	9	22	16	5	5	-	-	1	1.6

LONDON UNIVERSITY O'LEVEL RESULTS

DISTRIBUTION OF CANDIDATES BY NUMBER OF PASSES OBTAINED.

Year	Total Candidates	No. of Passes Obtained				Average Number of Passes Per Candidate
		0	1	2	3	
1970	96	62	29	5	0	0.4
1971	107	68	30	9	0	0.4
1972	119	74	28	15	2	0.5
1973	141	102	35	4	0	0.3
1974	n.a.	n.a.	21	1	0	n.a.
1975	n.a.	n.a.	37	4	1	n.a.
1976	n.a.	n.a.	42	5	0	n.a.
1977	171	n.a.	74	10	2	n.a.
1978	100	71	25	4	0	0.3
1979	66	41	22	2	1	0.4

Source: Montserrat Secondary School

REPUBLIC OF TRINIDAD AND TOBAGO
 CAMBRIDGE G.C.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS BY SUBJECT, 1976-1980

Subject	1976		1977		1978		1979P		1980P	
	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed
English Language	(1) 9,883	(2) 5,356	(3) 14,583	(4) 7,255	(5) 16,260	(6) 5,653	(7) 18,825	(8) 4,423	(9) 17,303	(10) 5,213
English Literature	6,416	1,736	7,740	2,175	6,452	1,878	5,813	1,463	5,019	1,538
Mathematics	6,783	2,407	11,024	2,510	13,235	2,286	15,004	2,514	13,569	2,083
Additional Mathematics	1,146	650	1,472	590	1,237	593	1,253	543	1,397	642
Science	2,453	1,112	3,618	1,336	4,264	1,225	4,513	1,554	4,281	1,494
Chemistry	1,381	776	1,939	918	2,344	958	2,532	1,081	2,457	1,093
Physics	4,016	1,809	5,758	1,274	5,833	1,603	6,360	1,549	5,608	1,513
Biology	3,165	911	3,986	1,272	4,626	1,308	4,783	1,218	4,602	1,302
Health Science	540	179	1,308	337	1,259	258	1,606	294	1,319	249
General Science	-	-	-	-	-	-	764	47	729	24
Agricultural Science	-	-	-	-	-	-	-	-	12	3
Engineering Science	-	-	-	-	-	-	512	21	379	25
Geology	-	-	-	-	-	-	147	80	136	72
Electricity and Electronics	158	68	971	98	861	92	-	-	-	-
Other Sciences ¹	-	-	-	-	-	-	-	-	-	-
Social Studies	6,033	2,624	9,034	3,510	7,621	3,099	9,453	3,077	7,552	3,153
History	4,879	1,796	6,648	1,677	7,515	1,458	8,795	2,061	8,144	1,934
Commerce	933	377	1,701	605	2,126	559	2,700	641	2,679	845
Principles of Accounts	4,691	1,802	6,356	2,253	5,903	1,902	6,747	1,867	6,001	1,910
Geography	-	-	-	-	-	-	619	43	1,082	86
Economics	-	-	-	-	-	-	-	-	-	-

REPUBLIC OF TRINIDAD AND TOBAGO
CAMBRIDGE G.C.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS BY SUBJECT, 1976-1980 (Cont'd.)

Subject	'O' Levels																																																																																																																																																																							
	1976		1977		1978		1979 ¹		1980 ²		1980 ³																																																																																																																																																													
	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed																																																																																																																																																												
Technical Studies													Woodwork	181	26	465	51	497	55	523	52	425	23	425	23	Metalwork	30	8	190	13	415	18	240	18	215	9	215	9	Geometrical, Mechanical and Building Drawing ²	140	35	553	65	1,017	96	1,084	128	952	151	952	151	Metalwork Engineering							98	24	51	15	51	15	Other									12	1	12	1	Foreign Language													French	1,162	641	1,069	578	1,049	503	916	509	845	466	845	466	Spanish	3,666	1,193	5,175	997	4,899	731	5,085	773	4,181	863	4,181	863	Other ³	140	95	40	17	462	14	36	19	18	5	18	5	Art	898	419	1,240	464	825	287	1,075	375	845	320	845	320	Religious Knowledge	1,177	437	835	331	605	280	601	235	551	181	551	181	Other Subjects ⁴	456	233	1,111	265	918	277	1,307	399	984	302	984	302
Woodwork	181	26	465	51	497	55	523	52	425	23	425	23																																																																																																																																																												
Metalwork	30	8	190	13	415	18	240	18	215	9	215	9																																																																																																																																																												
Geometrical, Mechanical and Building Drawing ²	140	35	553	65	1,017	96	1,084	128	952	151	952	151																																																																																																																																																												
Metalwork Engineering							98	24	51	15	51	15																																																																																																																																																												
Other									12	1	12	1																																																																																																																																																												
Foreign Language																																																																																																																																																																								
French	1,162	641	1,069	578	1,049	503	916	509	845	466	845	466																																																																																																																																																												
Spanish	3,666	1,193	5,175	997	4,899	731	5,085	773	4,181	863	4,181	863																																																																																																																																																												
Other ³	140	95	40	17	462	14	36	19	18	5	18	5																																																																																																																																																												
Art	898	419	1,240	464	825	287	1,075	375	845	320	845	320																																																																																																																																																												
Religious Knowledge	1,177	437	835	331	605	280	601	235	551	181	551	181																																																																																																																																																												
Other Subjects ⁴	456	233	1,111	265	918	277	1,307	399	984	302	984	302																																																																																																																																																												

¹Includes: Physical Science, Engineering Science and Environmental Science.

²Includes: Geometrical Mechanical Drawing, Geometrical Building Drawing and Surveying.

³Includes: Classics in Translation, German and Latin.

⁴Includes: Needlework and Dressmaking, Cookery and Music.

Source: Republic of Trinidad & Tobago Central Statistical Office Annual Statistical Digest 1980 No. 27.

APPENDIX XXXI

REPUBLIC OF TRINIDAD AND TOBAGO
CAMBRIDGE G.C.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS
BY SUBJECT, 1976-1980 - Continued

Subject	1976		1977		1978		1979P		1980P	
	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed
English Literature	(1) 288	(2) 190	(3) 279	(4) 174	(5) 282	(6) 183	(7) 302	(8) 172	(9) 304	(10) 214
Mathematics	332	291	332	277	520	352	603	418	536	364
Mathematics	70	42	79	37	58	25	43	18	40	19
Applied Mathematics	73	51	97	46	73	30	49	23	41	21
Pure Mathematics	3	1			6	1	6	1	13	6
Further Mathematics										
Additional Mathematics	96		144							
Statistics					9	5	7	2		
Science	498	242	496	267	513	238	568	241	520	279
Chemistry	321	164	354	163	372	204	473	250	441	243
Physics	403	55	105	61	190	111	157	101	143	98
Biology	19	6	11	6	10	5	17	10	9	4
Geology	285	133	239	150	187	95	180	59	171	71
Zoology	45	15	46	15	42	11	34	6	35	11
Botany										
Social Studies	256	105	296	109	300	116	338	103	293	114
History										
Economic and Public Affairs	448	198	519	239	530	254	558	201	452	158
Geography	292	161	337	168	364	142	380	142	352	148
Accounting									3	
Technical Studies									3	

REPUBLIC OF TRINIDAD AND TOBAGO
CAMBRIDGE G.C.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS
BY SUBJECT, 1976-1980 - Continued

Subject	'A' Levels									
	1976		1977		1978		1979P		1980P	
	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed	No. wrote exam	No. passed
Foreign Language										
French	179	110	202	95	158	100	131	85	141	112
Spanish	184	110	201	114	188	105	179	104	144	113
Other ⁵	3	2							2	2
Art	21	16	38	29	26	16	5	5	27	21
Religious Knowledge										
Other Subjects ⁷	23	3	26	9	6	2			5	2

⁵Includes: Economics, Economics and Public Affairs.

⁶Includes: Latin, German.

⁷Includes: Music

Source: Republic of Trinidad & Tobago Central Statistical office annual Statistical Digest 1980 No. 27

REPUBLIC OF TRINIDAD AND TOBAGO
LONDON G.C.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS BY SUBJECT 1975-1979

Subject	1975		1976		1977		1978		1979	
	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed
English Language	(1) 5,685	(2) 1,480	(3) 6,517	(4) 1,476	(5) 7,185	(6) 1,333	(7) 8,889	(8) 2,077	(9) 9,429	(10) 2,169
English Literature	995	96	651	136	542	114	753	64	554	41
Mathematics	2,505	1,000	2,776	910	3,517	1,094	6,316	1,526	6,197	1,657
Additional Mathematics	173	14	216	39	252	57	430	102	-	-
Pure Mathematics/Pure Mathematics and Statistics	-	-	-	-	-	-	179	21	305	79
Applied Mathematics	-	-	-	-	-	-	-	-	-	-
Pure and Applied Mathematics	-	-	-	-	-	-	-	-	-	-
Further Mathematics	-	-	-	-	-	-	6	1	-	-
Pure Mathematics and Theoretical Mechanics	-	-	-	-	-	-	-	-	-	9
Statistics	-	-	-	-	-	-	-	-	50	13
Sciences	524	102	593	183	846	233	1,692	460	1,555	491
Chemistry	472	106	550	135	641	165	1,273	311	1,254	292
Physics	1,395	385	1,280	379	1,509	415	2,902	821	2,838	484
Biology	1,948	296	1,942	169	1,985	108	2,171	67	2,016	93
Health Science	19	2	-	-	-	-	-	-	-	-
Agricultural Science	-	-	-	-	-	-	-	-	-	-
General Science	3	-	6	-	10	1	129	21	-	-
Zoology	25	9	29	12	38	2	79	28	4	9
Geology	65	16	128	31	130	36	220	44	33	76
Botany	-	-	-	-	-	-	-	-	256	-
Other (Science)2	-	-	-	-	-	-	-	-	-	-
Social Studies	2,763	937	3,030	941	3,305	816	4,102	1,170	3,212	1,055
History	2,256	894	2,453	595	3,361	672	4,432	738	4,889	671
Commerce	460	77	690	157	933	321	1,289	447	1,346	584
Principles of Accounts	-	-	-	-	-	-	-	-	-	-

REPUBLIC OF TRINIDAD AND TOBAGO
LONDON G.C.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS BY SUBJECT 1975-1979 (Cont'd.)

Subject	1975		1976		1977		1978		1979	
	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed
Economics	794	132	1,089	399	1,098	95	1,936	184	1,041	324
Geography	1,154	364	983	343	979	372	1,945	353	1,504	157
British Constitution									55	27
Other (Social Studies) ³	69	25	61	7	58	4	53	7		
Technical Studies										
Woodwork										
Metalwork										
Technical Drawing	90	23	125	38	194	50	237	52	241	16
Geometrical Mechanical and Building Drawing ⁴										
Other ⁵	12	4								
Foreign Languages										
French	239	37	166	22	181	29	249	21	195	38
Spanish	997	42	729	17	711	58	1,236	109	1,142	76
Other ⁶	12	1	12	4	5	2	10	3	6	2
Art	111	50		69	109	55	216	117	149	90
Religious Knowledge	374	182	356	205	377	97	356	154	355	163
Other Subjects ⁷	4	1	1	1	1	1	2	2	2	1

¹Includes: (1) Students in Government Secondary and Private Secondary Schools.
²Students prepared through Extra Mural and Extension Classes.
³Individuals prepared through private tuition.
⁴Includes: Engineering Science, Physics with Chemistry, Astronomy and Integrated Science.
⁵Includes: British Constitution and Logic, British Government.
⁶Includes: Geometrical Mechanical Drawing and Geometrical Building Drawing.
⁷Includes: Hindi, Latin, Greek, German, Sanskrit and Gujarati.

Source: Republic of Trinidad & Tobago Central Statistical Office Annual Statistical Digest 1980 No. 27.

EDUCATION

APPENDIX XXXIV

REPUBLIC OF TRINIDAD AND TOBAGO
LONDON C.G.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS BY SUBJECT 1975-1979 - Continued

Subject	'A' Levels									
	1975		1976		1977		1978		1979	
	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed
English Language	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
English Literature	75	12	98	10	101	9	58	13	73	16
Mathematics										
Mathematics	13	3	18	1	157	47	203	63	235	-
Additional Mathematics										
Pure Mathematics	147	30	133	32	140	29	179	21	219	53
Mathematics and Statistics	39	10	46	14	61	15	-	-	-	-
Applied Mathematics										
Pure and applied Mathematics	113	35	122	51	116	30	-	-	-	-
Further Mathematics										
Statistics										
Science										
Chemistry	153	34	157	21	172	35	252	36	251	43
Physics	124	25	110	13	100	23	253	50	162	33
Biology	11	3	24	4	45	10	49	3	58	10
Health Science										
Agricultural Science										
General Science										
Zoology	121	41	114	21	96	13	129	21	109	7
Geology										
Botany	26	5	35	7	35	15	38	18	29	16
Other (Science)2										
Social Studies										
History	222	26	166	17	151	17	329	86	155	27
Commerce										
Principles of Accounts										
Economics	552	130	759	156	780	62	865	95	808	60

REPUBLIC OF TRINIDAD AND TOBAGO
LONDON C.G.E. 'O' AND 'A' LEVEL EXAMINATION RESULTS BY SUBJECT 1975-1979 - Continued

Subject	'A' Levels											
	1975		1976		1977		1978		1979			
	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed	No. sat	No. passed
Geography	137	26	103	23	139	32	212	20	193			42
Government and Political Studies	20	-	-	-	-	-	-	-	-	-	-	-
Sociology	130	-	-	-	-	-	-	-	-	-	-	-
Other Social Studies ³	-	-	-	-	-	-	-	-	-	-	-	-
Technical Studies	-	-	-	-	-	-	-	-	-	-	-	-
Woodwork	-	-	-	-	-	-	-	-	-	-	-	-
Metal-work	-	-	-	-	-	-	-	-	-	-	-	-
Technical Drawing	10	1	22	5	39	5	36	10	22	-	-	5
Geometrical Mechanical and Building Drawing ⁴	-	-	-	-	-	-	-	-	-	-	-	-
Other ⁵	-	-	-	-	-	-	-	-	-	-	-	-
Foreign Language	-	-	-	-	-	-	-	-	-	-	-	-
French	36	2	26	5	15	-	22	-	20	-	-	-
Spanish	43	1	39	5	22	2	27	9	34	-	-	6
Other ⁶	-	-	-	-	1	-	-	-	-	-	-	-
Art	43	9	58	12	57	25	51	23	57	25	-	-
Religious Knowledge	8	3	12	2	9	3	13	3	10	1	-	-
Other Subjects ⁷	2	-	-	-	1	-	-	-	-	-	-	-

¹Includes: (1) Students in Government Secondary Schools

(2) Students prepared through Extra Mural and Extension classes.

(3) Individuals prepared through private tuition.

²Includes: Engineering Science, Physics with Chemistry and Astronomy.

³Includes: British Constitution and Logic

⁴Includes: Geometrical Mechanical Drawing and Geometric Building Drawing.

⁵Includes: Surveying.

⁶Includes: Hindi, Latin, Greek, German, Sanskrit and Gujarati

⁷Includes: Music

Source: Republic of Trinidad & Tobago Statistical Office Annual Statistical Digest 1980 No. 27.

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