OECS Human Development Report 2002

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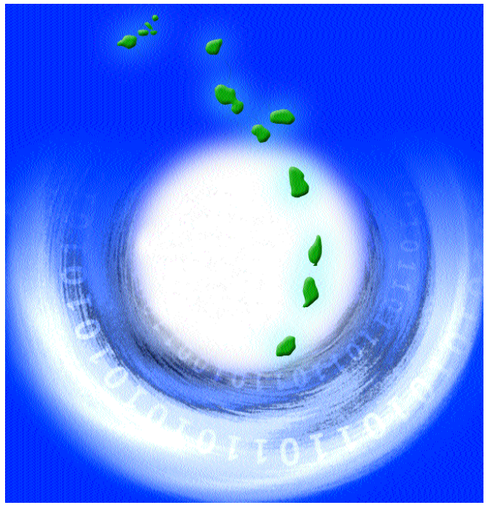
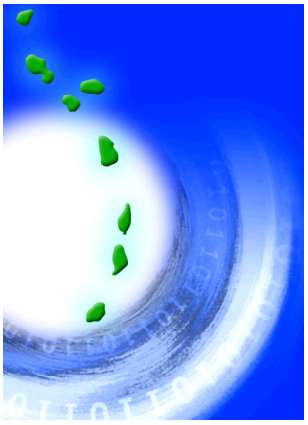


The cover design portrays the swirling winds of the various economic, technological and natural events experienced by the islands in the OECS Region. But despite the vulnerabilities, the swirl also propels the islands upwards to higher levels of human development as they strengthen their capacities and embrace new information and communications technology. Viewed through the eye of the lens, the swirl also depicts an unbroken circle, reflecting the deepening integration process of the nine OECS islands as they move forward in their development efforts.



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Foreword

I am extremely pleased to write the foreword of this first Sub-regional Human Development Report (HDR) for the OECS. Publication of this Report is timely. It coincides with the introduction of a new Strategic Plan of the OECS Secretariat that embraces Sustainable Social and Human Development (SSHD) as a new platform, and recognises that progress towards the goal of sustainable social and human development requires that people's capacities, choices and opportunities are expanded and that they can lead satisfying and productive lives. This in turn requires that people's opportunities and well-being are the central goals for all development policies and programmes.

The approach of the OECS HDR, reinforces the "people-centredness" thrust of the OECS Development Strategy and OECS Development Charter. It provides analytical support to the recommendations, especially with regard to the emphasis on strengthening the linkages between economic and social development for purposes of advancing government policy objectives of sustainable human development and poverty eradication as priority challenges in the 21st century.

This Report assesses the status of human development of the nine OECS Member States in terms of their capacity to achieve competitiveness, maintain growth, even while being influenced by, and integrated into the external environment, and at the same time improve the conditions of social and human development, as well as reduce poverty. It acknowledges that any attempts at addressing current approaches to human development for purposes of "enlarging people's choices in a way that is equitable, participatory, productive, and sustainable" over time, can be typically constrained by various social, economic and natural assets and events. In this regard, given the insecurities and vulnerabilities that could bedevil efforts to expand people's choices and opportunities, issues regarding the need to secure human development, once achieved, are emphasized. In addition, the standard measures of human development are revisited in an attempt to adequately capture the social and economic realities in the OECS countries. Hence, indicators of disadvantage, resilience, and sustainability, are constructed, and the traditional UNDP Human Development Index (HDI) adjusted accordingly.

The analyses in this Report, alert policy makers to the challenges that still lie in the path of equitable development, and, in particular the need to counter and alleviate poverty in the various forms it assumes in the OECS region. While material poverty affects a large number of households, the Report points to the impending dangers of more widespread and subtle forms of poverty that include poor health, inadequate levels of education attainment; lack of economic assets or access to markets or jobs that could create them, unsafe physical environments; and various forms of social exclusion. This is especially so for young people. Thus, the question of how to better meet the needs and aspirations of the upcoming generation in the OECS countries becomes an urgent concern across the region.

Discussions are centred on the potential that exists in the areas of education, health, and employment generation to

widen development choices for OECS citizens. In addition, other immediate actions relate to encouraging diversification; increasing resource capability; increasing flexibility; and reducing the level of exposure to threat and risk. Of importance, is the recommendation that proactive development policies must take into account, planning on several fronts, including health, education, environment and the labour market, since, as with the issues of poverty, gender, skills and unemployment, these issues are not mutually exclusive.

Equally significant, is the important connection made between the availability of sound and timely data and information, and effective policy formulation and monitoring. Developing better information systems on social and economic conditions and changes, and strengthening government's abilities to produce and analyse this information, constitute an essential ingredient towards improving human development in the OECS countries.

The policy challenges set out in this Report reinforce those outlined in the OECS Development Strategy and hinge, to a large extent, on building the external capacities that will enable successful competition in the International market.

On the whole, the OECS Human Development Report has shown us that although much has been done in developing the human resources of Member States over the past decades, great challenges remain for the governments and peoples of the OECS region. The OECS Member States and the OECS Secretariat are working closely together to address these challenges in ways that are innovative and reflective of the new forces in our societies and the external environment. For example, the establishment of the Eastern Caribbean Telecommunications Authority (ECTEL) will address some of the deficiencies in information communication technology and, at the same time, related human resource development processes. In addition, other initiatives such as the OECS Education Reform Strategy and the OECS Environment Management Strategy will contribute to the improvement of the human and social conditions. Moreover, the deepening and strengthening of the integration process within the OECS region through the formation of the OECS Economic Union will provide an opportunity and a platform for enhancing the productive capabilities of the region as a whole, and ultimately, enlarging people's choices and opportunities for greater human development.

We wish to acknowledge and congratulate the many individuals involved in the preparation of this Report, and, in particular, the Hon. Prime Ministers of the OECS Member States for their important contributions towards the review of the HDR document; and officials from the National Planning Ministries and Statistical Offices for kindly sharing their comments and information. We also wish to express appreciation to our Development Partner, the UNDP, Barbados, for their support, and for their vision in providing the seed funding for the establishment of the OECS Social Development Unit (SDU), which is responsible for the conceptualization, coordination and direction of this OECS HDR Report.

It is hoped that the public in general, OECS governments, Development Partners, including communities and NGOs, will find this a useful publication that will contribute to further development dialogue and place social and human priorities at the centre of development programming in the OECS region.

George Goodwin Jr.
Director General (Ag.)
Organisation of Eastern Caribbean States (OECS)

Message from UNDP Resident Representative

UNDP is pleased to acknowledge the partnership of the Organization of Eastern Caribbean States (OECS) Secretariat in the production of this first Sub-regional Human Development Report (SHDR) for its member states – Building Competitiveness in the Face of Vulnerability. This document offers the basis for a powerful tool in providing concrete policy proposals, and rigourous data analysis, while articulating national priorities.

Since the publication of the first Global Human Development Report (HDR) in 1990 and follow-up national and regional HDRs, these documents have established a tradition as policy and resource allocation guides, a means of tracking national and regional performance, building consensus and, offering data, often not published elsewhere. They have also been a catalyst for change, spurring shifts in budget priorities, policy innovations, the establishment of new institutions and improvement of the old. They reach UNDP country offices and communities globally, contributing to the knowledge networking, sharing of best practices and inspiring NGO advocacy.

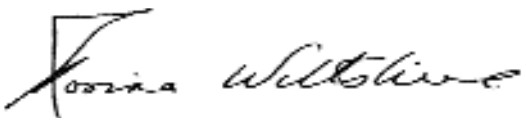
Some of the fundamental principles underlying the HDR concept are national and regional ownership, independence of analysis, quality analysis and participatory and inclusive preparation. This SHDR has been prepared under the direction of the OECS Secretariat by the sub-region's academic community, in consultation with participating governments. The analysis covers a wide spectrum of international and domestic issues: economic, political, social, demographic and environmental, identifies where lags occur and provides help in the identification of strategic responses.

The focus of this report, Competitiveness and Vulnerability, is most relevant. OECS member states are particularly vulnerable to external shocks from trade imbalances, environmental degradation and natural disasters. The Caribbean is also highly vulnerable because of small size, but a highly educated people represent its greatest competitive edge. The analysis uncovers what is perhaps the greatest challenge to the sub-region's competitiveness and, as a result, possible policy direction to OECS governments – human capacity development. One of the measures of vulnerability, the Index of Resilience goes even further, showing that only four of the nine OECS member states have maintained levels of expenditure to sustain or improve the health and education of their people.

This SHDR reconstructs a Human Development Index (HDI) specific to the countries of the sub-region. Unlike the global HDI, two countries move into the 'high' human development category.

Finally, this SHDR takes into account one of the most crucial elements of Caribbean development - poverty. Its analysis shows that the assumption that economic growth will reduce poverty does not hold for the OECS sub-region. Despite growth in GDP and per capita income, poverty persists or increases. Poverty has been found to be most prevalent in rural and agricultural areas, among youth, in female-headed households and in larger families. This finding will be key for policy strategies for the reduction of poverty.

I recommend this SHDR to policy makers as an aid to development programmes and for consultation with development stakeholders, to researchers for further analysis, to tertiary and secondary academic institutions as required reading and to the public at large.



Rosina Wiltshire
UNDP Resident Representative

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Executive Summary

This first subregional Human Development Report for the OECS Region analyses and reports on the human development status of the nine small-island developing states that constitute the Organisation of Eastern Caribbean States (OECS), established in 1981 with the signing of the Treaty of Basseterre: Anguilla, Antigua and Barbuda, British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

This report acknowledges that any attempts at addressing current approaches to human development, for purposes of "enlarging people's choices, in a way that is equitable, participatory, productive, and sustainable" over time, can be typically constrained by various social, economic and natural assets and events. The main social, economic and political constraints facing countries in the OECS are addressed within the human development framework. Attention is given to the current status of Member States in terms of their capacity to achieve competitiveness, maintain growth even while being influenced by, and integrated into the external environment, and at the same time improve the conditions of social and human development as well as reduce poverty.

This OECS Human Development Report also considers it necessary to revisit and possibly modify standard measures of human and social development in an effort to adequately capture the social and economic realities in the OECS countries, taking account of the insecurities and vulnerabilities that could bedevil efforts to expand people's choices and opportunities. In this regard, in addition to the traditional UNDP Human Development Index (HDI), a second index - an Adjusted Human Development Index - was constructed with the concept of vulnerability at its core.

Chapter 1 examines the current economic, social and political situation within which the OECS governments seek to pursue effective human development strategies. In this regard, a wide spectrum of economic issues, both domestic and international; political, social, demographic, environmental and poverty reduction aspects are covered.

This chapter stresses that the adjustment and transformation of the OECS economies to face the changes in the new global economy will be challenging. The analysis shows that while several of the countries have been able to take advantage of some of the opportunities offered by the new international environment, the productive and manufacturing sectors have not often fared very well, and in the areas of technological and human development, the member countries not only continue to lag far behind those in the more developed countries, but are also well below the standards and levels deemed desirable.

It acknowledges that development strategies at the national and subregional levels in the OECS region, including the OECS Regional Development Strategy, provide a vision and help identify strategic responses to the current crisis.

This chapter identifies at least three important challenges. Firstly, there are the fiscal implications of adapting to the liberalised global environment. This revenue adjustment comes at a time when the countries would be called upon to increase spending to improve social and economic conditions and broaden the choices of the members of the society. This turns the focus to the second challenge, which is one of securing the levels of human development necessary to achieve both social well-being and economic growth. Issues of human resource capacity will affect the timeliness and efficiency with which Member States can develop and implement the necessary arrangements and mechanisms that would support closer regional integration.

The third is the ongoing challenge of regional cooperation. While OECS Member States have made some progress, for example, the successful monetary union, there are still a number of elements that must be addressed. The Member States' recent decision to establish an OECS Economic Union and to facilitate freer movement of nationals within the sub-region represents an additional step towards closer cooperation. However, there are a number of challenges that would affect the success of the countries in these areas. An important one has to do with the identification and mobilization of the resources needed to ensure the creation of an OECS Economic Union and to finance the arrangements for the freer movement of OECS nationals.

Chapter 2 addresses the construction of the Human Development Index (HDI) for the OECS countries. Not surprisingly, the HDI values (1999 and 2000) show a wide range of human development conditions throughout the OECS region. While OECS Member States still retain their medium human development category classification, two countries - BVI and St. Kitts and Nevis - have now achieved high human development category positions. In general, the group of Windward Islands lags behind the pace of human development of the Leeward Islands. Only two countries appear to be effective in converting income into human development.

In addition to the traditional UNDP Human Development Index (HDI), a second index - an Adjusted Human Development Index (AHDI) - was constructed in an effort to adequately capture the social and economic realities in the OECS countries, taking account of the disadvantage aspects and vulnerabilities that could pose obstacles to national and regional efforts to expand people's choices and opportunities.

The development of an Adjusted Human Development Index builds upon the original UNDP methodology by incorporating additional indicators. It enables an analysis and assessment of national level performance through an examination of the different components of likely vulnerability, namely: disadvantage, sustainability and resilience. The social and economic dimensions of these three components were also specifically explored in chapter 2.

Although all OECS Member States have made progress in human development in the past decade, from expanding knowledge to improving survival to raising standards of living, behind this record of overall progress lies a more complex picture of diverse experiences across countries, which are advancing at different paces and achieving different levels of human development. The discussions of this

report clearly show that the accomplishments in economic growth, and in social and human development, are in danger of falling behind the levels of performance and attainment accomplished earlier.

Further analysis reveals that the performance levels and rankings on the Adjusted Human Development Index are closely associated with the poverty and/or inequality levels found in the countries. Other contributing factors include high unemployment levels, moderate educational performance, fragile health status, and relatively low and falling health care expenditure.

These findings seem to be reinforcing the close relationships between the economic, social and human issues, and the need for much greater policy attention to those non-exogenous (or non-external) factors that are likely to be necessary for improving the levels of resilience, and the sustainability of the growth process.

Chapter 3 of this Report examines the existing capacities of the OECS region for achieving competitiveness and securing opportunities for secure livelihoods. The identification of factors that are necessary for increasing resilience and improving the capacity to sustain social and economic development are also assessed.

On the whole, examination of existing data shows that the primary obstacles to development are the lack of capacity in terms of sources of output and employment (economic concentration), and the lack of an adequate human resource base. These, in turn have serious consequences for the underutilisation of resources. This problem of resource underutilisation is especially seen among females, where, although they exhibit dominance throughout the educational system and in professional/managerial occupations, there are still significant wage, and power differentials. A general finding is that too many assets in the region are underutilised and their development inhibited due to economic concentration, rigid labour markets and poverty.

One common problem identified among the countries - the concentration and reliance on only a few sectors for output and employment- is viewed as a variable that can easily exacerbate any problems arising from exposure and vulnerability to external forces and developments. Another common problem, considered an important factor affecting the rigidity of the labour market, is the issue of youth unemployment. This was seen as a reflection of slow economic growth, insufficient education and training, and a mismatch between the skills taught, and those needed in the labour market. To this may be added the growing adverse attitude to education among males in the OECS region.

Chapter 4 provides a more in-depth analysis of the development of human resources, identified as a critical prerequisite for the improvement of the competitiveness of the economies, and to help to ensure the build up of resilience, and sustainability. It notes that this would require significant human capital investment (education, skills training) and technological development, and therefore also greater emphasis on the capabilities of the educational systems.

However, on the basis of an analysis of certain criteria- such as, investment in education, performance levels, and the retention of skills in an innovative learning environment – it became clear that the region remains in a very vulnerable position. While substantial gains have been experienced in terms of access to educa-

tion at the various levels over the last thirty years, the investment in tertiary education still remains below what would be required to build competitive economies.

It was pointed out that mere access to secondary education and eligibility for these examinations, are not sufficient indicators of either the extent of human capital investments/endowments, or their capacity to render a country more resilient to external shocks; neither does it indicate the increased potential for sustainability. The quality of education, its relevance, and the success of students sitting these examinations must, in the final analysis, be the important factors.

This chapter underscored the need for more attention to be given to issues of efficiency and effectiveness. Particularly important is labour market relevance and readiness of the education system for the challenges posed by the new technological and information age. It was argued that, if the secondary level begins the work of providing individuals with the skills needed for success on the labour market, then, in this regard, the very low number of students obtaining no more than 2 subjects in one sitting at the CXC 'O' (basic and general proficiency) level - must therefore be viewed with concern. So, too, must the continuing concentration in a very limited range of subjects, and the low-to-modest performance on core subjects such as Mathematics and English Language, since these are fundamental to the learning of other subjects. It should be noted, however, that the performance of candidates sitting CXC in the OECS region in English and Mathematics (Grades 1-III level) is superior to that of the overall Caribbean average, and despite the fluctuations, demonstrates some signs of improvement.

On the other hand, until these results show some consistency, it would appear that significant weaknesses continue in the human capital development process.

In addition to issues of education quality, efficiency, effectiveness and performance, this chapter addresses the subject of equity in the education system. Throughout this report the strong and significant relationship between poverty and the inadequacy of the human capital has been discussed. In addition, the current growing concern with the gender-related inequalities in education, in particular, the relatively low academic participation and performance by boys in the school system, is examined.

The need for closer linkages between macroeconomic policy and education policy is emphasized. In addition, it is suggested that the required strategy of educational reform involves the remodelling of the education systems to cope with a changing future, especially the needs of an internationally competitive labour force .

Chapter 5 assesses the health situation of the countries and strategies for reducing the burden of disease on development capacities. Notwithstanding the historical achievements in the health sector, more recent developments have begun to suggest that they may be in danger of being arrested or even reversed.

Health expenditures and finance reform are assessed in the context of rising health demands on the one hand, and declining government revenues available for allocation to the health sector on the other. An examination is also made of governments' initiatives to explore the possibilities for health finance reform that could facilitate an increase in the resources going to the health sector and/or at least identify more innovative

and efficient ways of utilising the existing stock of limited resources, for example, revised user fee programmes.

This chapter argues that these challenges become even more intense given the findings of the close relationship between, health, social well-being, economic growth, and development, and the negative impact that poor health and well-being can have on economic growth and the capacity of the OECS countries for development.

It is recommended that more concerted and continuing attention should be given to the impact of social and human development on economic development; the consequent shift away from the conceptualisation of health, and education as purely consumption (and therefore non-productive) items in the national accounting system must therefore also be encouraged and promoted.

Chapter 6 examines the social conditions of existence, particularly the poverty situation, and ways of securing social well-being and a safe environment.

Despite the assumption and/or expectation that economic growth will alleviate poverty, in terms of GDP and per capita income, this has not been the case in the OECS region. The OECS Member States have experienced growth in GDP and per capita income while at the same time observing increases in poverty. Poverty was found to be higher in rural and agricultural areas; higher among the youth; higher among female headed households and larger families. A more detailed examination of the relationships between poverty, educational attainment, and labour market status revealed that unemployment is very high among low-skilled elementary and craft occupations, that the poor lack education and, among the unemployed, a high percentage have only completed primary education. This has obvious implications for the availability of human resources – in terms of both quantum and range - that could support the countries' attempts to compete in ways that could contribute to growth and development.

The discussion and findings of this chapter illustrate the reality and dangers of a "poverty trap" emerging in many OECS countries. In such a situation where there is an almost inevitable and invariable clustering of poor health, inadequate levels of educational attainment, unsatisfactory material conditions of existence, and unsafe physical environments, each reinforces the other and individuals find it very difficult to escape what has come to be a vicious circle. The poverty trap exists at both the macro and individual micro levels. This chapter argues that tackling social and individual poverty will therefore require initiatives that can also address the structural inadequacies of the society and economy.

Chapter 7 puts forward a number of policy issues and possible policy approaches that emerge from the diagnosis of the social and economic situation in the OECS. The fact that the OECS Member States have been experiencing relatively stable growth while increases in poverty are still being observed, together with the issues related to the labour market structure, and limited human capital development raise serious questions about the longer-term sustainability of the development process.

Several immediate actions are recommended in the short run. These issues relate to encouraging diversification in the OECS region; increasing resource capability; increasing flexibility; and

reducing the level of exposure. This chapter suggests that proactive development policies must take into account planning on several fronts, including health, education, environment and the labour market since, as with the issues of poverty, gender, skills and unemployment, these issues are not mutually exclusive.

The policy challenges set out in this chapter reinforce those outlined in the OECS Development Strategy and hinge, to a large extent, on building the internal capacities that will enable successful competition in the international environment.

Building competitiveness in the face of vulnerability: an overall framework

Human Development is about much more than the rise or fall of national incomes. It is about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests....Development is thus about expanding the choices people have to lead lives they value. And it is thus about much more than economic growth, which is only a means – if a very important one – of enlarging people's choices.

This definition of human development represents a significant movement in the ongoing discussion of the goals of, and requirements for, the development process, envisaged by Caribbean scholars, Sir Arthur Lewis and William Demas, as far back as the early sixties, as "a process of simultaneous progress on all fronts of human existence, economic, as well as social, political and institutional". By integrating the concepts of social and economic development it seeks to fuse the "rights-based" approach to social improvement with a capability and capacity-building one, to a much greater extent than has hitherto been the case. By linking social and economic development in a "virtuous circle" even greater emphasis is given to the importance of expansion of opportunity and improved social well-being for ensuring economic development, even while there is insistence that the purpose of economic development must be to allow people to live "long, healthy, and creative lives."

This concept and approach to development implies a number of more specific goals - almost all of which underscore the fundamental acceptance of the principles of equity and fairness, social and political institutional development, and a decent standard of living for all [See Box A].

This Report analyses and reports on the human development status of the countries that constitute the Organisation of Eastern Caribbean States (OECS), established in 1981 with the signing of the

Box A.
Development Goals - UNDP

- Basic health and education for all
- Equal opportunities for being productive and having productive livelihoods
- Poverty eradication and the elimination of social and economic inequities
- Political and social freedoms - especially the freedom to choose jobs and livelihoods
- A safe physical environment
- Freedom from violence and physical threats
- Adequate shelter and universal access to safe water and sanitation
- An empowered civil society with strong community and family based social institutions.

TODAY IN THE OECS COUNTRIES, HUMAN DEVELOPMENT MUST NOW BE ACHIEVED WITHIN THE CONTEXT OF A WORLD THAT IS BECOMING INCREASINGLY INTEGRATED & COMPETITIVE AS A RESULT OF RAPID PROGRESS IN KNOWLEDGE & TECHNOLOGY

Treaty of Basseterre. The OECS has a membership of nine (9) small-island developing states: Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia and St. Vincent and the Grenadines are full members. Anguilla and the British Virgin Islands are Associated members, and along with Montserrat, British dependent territories. The provisions of the Treaty are very comprehensive and enabling in nature and therefore enjoin the Member States to work towards cooperation, harmonization and integration in a wide array of areas. These include economic co-operation, functional cooperation, external relations, the judiciary, currency and banking, and civil aviation. It is within this overall framework that the overall development objectives of the OECS focus on promoting growth and development, strengthening economic integration and stability, reducing poverty, improving the investment climate and building competitiveness, improving the quality of health services, providing quality universal education and protecting the environment.

2. OECS Experience within the Human Development Framework

"Building Competitiveness in the Face of Vulnerability" represents the key theme through which the OECS region's economic and social performance and its impact on human development are explored. This report acknowledges that any attempts at addressing the current approaches to human development, for purposes of "enlarging people's choices, in a way that is equitable, participatory, productive, and sustainable" over time, can be typically constrained by various social, economic and natural assets and events. In this regard, the main constraints facing countries in the OECS are addressed within the human development framework and attention given to the current status of Member States in terms of their capacity to achieve competitiveness, maintain growth even while being influenced by, and integrated into the external environment, and at the same time improve the conditions of social and human development as well as reduce poverty.

It has been demonstrated that among the main constraints facing countries in the OECS and other Caribbean countries is a high vulnerability to sudden economic and environmental changes, emerging out of a conjunction of various factors that include a high degree of economic openness, small internal markets, and limited capacity. In addition, because of geography and small population size, the OECS Member States are highly vulnerable to substantial and sustained negative effects from natural, social and ecological disasters that destroy natural, physical and social infrastructure, and population.

Today, in the countries of the Organisation of Eastern Caribbean States (OECS),

human development must now be achieved within the context of a world that is becoming increasingly integrated and competitive as a result of rapid progress in knowledge and technology, especially in information and communications technology. For OECS countries, therefore, the existence of other social and economic weaknesses and vulnerabilities – such as a high degree of production concentration, a lack of export diversification, limited skilled human resource base, and the relatively small social scale of the societies – all mean that adjustment to the changing international environment is likely to be onerous and asymmetrical.

The benefits gained by developing countries such as those in the OECS over the past decade have not been of the magnitude desired or expected. Moreover, the OECS small island economies are now being required to quickly become competitive and to survive in an environment that can be hostile to (or is at least indifferent to) their sustainable development.

In a context such as this, monitoring and evaluation of human development in the OECS within this framework would therefore need to involve comparison across countries within the Caribbean region, or in the rest of the world, in terms that adequately reflect vulnerability to crisis. That way, policy choices can focus on assisting these highly vulnerable countries to achieve greater resistance and resilience to external shocks and to find more creative ways to escape the poverty trap.

These features could also make it necessary to revisit and possibly modify standard measures of human and social development so that they can place greater emphasis on the level and extent of vulnerability in these societies, and their capacity to sustain human development. Further, since economic and human development require building competitiveness, the focus has to be on those social and economic indicators that will measure the capacity to effectively compete in the national and international environments and to sustain human development.

This Report characterizes human development of countries in the OECS in a way that takes into account their small size and the extent of their vulnerability to crisis. For this reason, the definition of human development for the OECS is expanded to a process of enlarging and securing the choices of people in these countries through means that are equitable, participatory, productive, and sustainable. Addition of the concept of *securing choices* allows introduction of relative performance indicators into the Human Development Index that measures the success of a country in eliminating vulnerability, overcoming disadvantage, and achieving resilience and sustainability in threatened environments. This characterisation of human development is used in considering the desirable outcomes of the process, especially with respect to the issues of longevity and quality of health, the level and quality of education, consumption standards and competitiveness.

The current development strategies of the OECS Member States recognise the need for deliberate policies for building capacity at all levels, and for determining the mix of economic activities in which their

MONITORING AND EVALUATION OF HUMAN DEVELOPMENT IN THE OECS WOULD THEREFORE NEED TO INVOLVE COMPARISON ACROSS COUNTRIES IN TERMS THAT ADEQUATELY REFLECT VULNERABILITY TO CRISIS; AND ACHIEVEMENT OF GREATER RESISTANCE AND RESILIENCE TO EXTERNAL SHOCKS

THE DEFINITION OF HUMAN DEVELOPMENT FOR THE OECS IS EXPANDED TO A PROCESS OF ENLARGING AND SECURING THE CHOICES OF PEOPLE IN THESE COUNTRIES THROUGH MEANS THAT ARE EQUITABLE, PARTICIPATORY, PRODUCTIVE, AND SUSTAINABLE

EXISTING AND EMERGING INTERNATIONAL AGREEMENTS SHOULD NOT STYMIE OR FRUSTRATE THE ATTEMPTS BY SMALL ISLAND ECONOMIES TO DIVERSIFY THEIR ECONOMIES

economies can be internationally competitive. The main question to be addressed: how can this be achieved while still improving the quality and levels of human development in the region.

3. Exposure to Threat and Risk

3.1 The Changing International Environment

Any attempts to achieve sustainable development must necessarily come to grips with the changing international environment. Most recently for example, precipitated by the widespread implementation of the WTO agreement, falling prices have led to systematic reduction in agricultural exports and hence in the rate of GDP growth in the 1995 - 2000 period. At the same time, much of the international leanings and political discussions that have taken place has been in the context of a minority of countries and in an atmosphere in which little attention is given to the attempts of small vulnerable states attempting to diversify their economies. Many of the issues of the "New International Economic Order" [NIEO] are no longer conceded much importance. The major objectives of the NIEO were:

- the regulation and stabilization of international commodity markets;
- non-reciprocal access of manufactured goods from developing countries to the markets of the developed countries;
- reform of the international financial system;
- the regulation of the activities of transnational corporations;
- the creation of an enforcement code of conduct governing the transfer of technology;
- the promotion of economic cooperation among developing countries; increased resource flows to developing countries; and
- in general, the alteration of existing institutional mechanisms and structures to support the objectives of development in developing states.

Since the 1970s, there has been movement on most of the areas of the NIEO but unfortunately not in a direction, which has been beneficial to small-island, developing economies. Trading agreements – for example the Generalized System of Preferences (GSP), the Lome' Convention, the Caribbean Basin Initiative (CBI) and the *Caribbean- Canada trade* agreement (CARIBCAN) which were signed in the 1970s and 1980s, all made provision for non-reciprocal access. Specific targets for developing countries' share of global manufactures by the year 2000 were identified in the Lima programme of United Nations Industrial Development Organization (UNIDO).

The cornerstone of the negotiations on trade in primary commodities was the Integrated Programme for commodities, which included a Common Fund for price stabilization. It was a comprehensive stabilization and development programme for 18 commodities of special export interest to the developing countries. It was to be supported by a central financing facility, which would tie the various commodity programmes into a cross-subsidizing package. The issues raised in context of trade in primary commodities found expression in the STABEX (Stabilisation of Export Earnings for Agricultural Commodities) and SYSMIN (System for Safeguarding and Developing Mineral Production) components of the Lome Convention. These components allowed income replacement for primary commodity exporters whose income declined because the price and or quantity of exports had declined significantly.

However, the benefits gained by devel-

oping countries such as those in the OECS have not been of the magnitude desired or expected. There are several reasons for this. Some of the most important are:

- the OECS and other Caribbean countries have frequently been unable to exploit the opportunities offered under the trade regime because their production structures have not been competitive enough to make significant inroads into these markets;
- While there have been incremental changes in the operation of the international institutions, the major changes have been slow in coming. The insistence on the liberalization of the capital account has, in part, led to the increased flows of private capital, but these flows are highly skewed towards a few countries and for most countries, it has been a mixed blessing.
- Development assistance never reached the levels originally envisaged; and
- With regard to the hoped-for technology transfer, this has been constrained by the requirements of the agreement on Trade Related Intellectual Property Rights *(TRIPS)* (under the WTO), and the even firmer control by multitional firms of subsidiary operations – a principal avenue for technology transfer. In addition, the factor endowments and social structure of developing countries are normally significantly different as to require modifications in the technology being transferred; but this has often been either too costly, or difficult.

Recent changes in international economic relations have now meant that many of the trade and trade-related issues have been incorporated into the rules and disciplines of the WTO, in a way that was never envisaged two decades ago. In particular, the insistence on reciprocal arrangements in trading relationships now run counter to the spirit of non-reciprocity embodied in the GSP and successive Lomé Conventions. The explicit intention of the changes in the international environment is to allow market forces to determine the scope, structure and outcome of economic activity; it is assumed that this will enhance the efficiency of the world economy and increase world welfare.

However, the issues of market effectiveness or failure, and many of the conditions that resulted in market failure still exist. These include information asymmetries, missing and undeveloped markets and external effects that are not fully considered in the profit maximizing calculus of private firms. At the same time, as many aspects of international economic relations become increasingly globalised, so do the many risks and negative spillovers of market failure. The internationalisation of systemic risk to the financial system is one example of the problem. Small island economies may then be required to quickly become competitive and to survive in an environment that can be hostile to (or is at least indifferent to) their sustainable development.

3.2. Hazardous Natural Environments

The OECS lies in the Atlantic's hurricane belt, and a single powerful hurricane can eradicate large amounts of the physical infrastructure, take a high toll in lives, immobilize the countries making recovery extremely difficult.

In addition, the islands lie in the ring susceptible to earthquakes and volcanoes: in the decade of the 1990s, volcanic activity has destroyed large sections of Montserrat. There has also been negative environ-

OECS COUNTRIES MUST SEEK TO DEVELOP THE CAPACITY TO WITHSTAND AND OVERCOME THE CONSEQUENCES OF EXPOSURE TO NATURAL HAZARDS

mental impact from the ash in Montserrat. There also has been psychological fear and uncertainty in other countries. For these reasons, the UN has recently made reduction of vulnerability in the OECS one of its major goals.

These features could make it necessary to modify standard measures of human and social development so that they can place greater emphasis on the level and extent of vulnerability in these societies, and their capacity to sustain human development. Issues related to the capacity to sustain human development need to be analytically and methodologically distinguished from the reality and/or likelihood of threats from various sources, however. Separate indices of threat then become necessary, and make an examination of the interface or interaction between threats, shocks, and internal capacities more feasible and meaningful for the assessment of human development.

It is therefore important to be able to accurately measure the incidence and intensity of risk and threat posed by possible shocks and disasters. To date, the attention of the international community has been fixed on measuring the crises that arise mainly from *exogenous* causes. This approach was guided by the view that "vulnerability, in the context of small states, is …associated with exposure to external economic forces and environmental hazards," and "is the consequence of two sets of factors: (1) the incidence and intensity of risk and threat and (2) the ability to withstand risks and threats (resistance) and to 'bounce back' from their consequences (resilience)". Correspondingly, measures of vulnerability were designed to refer to "structural vulnerability that depends on factors which are not under the control of national authorities when the shocks occur; the indicators should reflect exposure to shocks, that is to say, their magnitude and their probability".

It is of course also possible for there to be *endogenous* causes of crises or shocks. Population instability – as related to, or resulting from, high levels of internal and external migration, and the presence and persistence of ethnic and racial conflict are two examples of endogenous difficulties. It becomes important then to be able to weigh the relative influence of exogenous and endogenous factors. The countries of the OECS do have a high degree of susceptibility to erratic and irregular variations on many aspects of human development; it is important to determine how much of this could be traced back to factors over which they have very little control.

4. Possible Policy Responses

The OECS document "Towards an OECS Development Strategy" has summarised the current weaknesses in the OECS economies:

- A lack of resilience, diversity and competitiveness;
- An over-reliance on public-sector led growth;
- High reliance on trade preferences;
- Continued rigidity in trading patterns;
- Increased import demand and lagging export capacity; and
- Lack of capacity within the private sector.

Within the OECS and wider Caribbean region, up until now, attention has been focused on protecting the weak, obtaining "special considerations" for the vulnerable, and "buying time" for the economies. Thus, at the international level, suggested mechanisms, that could help to mitigate the worst effects of globalisation on devel-

oping economies, have stressed the need to allow adequate time for vulnerable countries to adjust to the new international environment, and the co-ordination of economic and social policy and international transfers of income to assist developing countries (including capacity-building) in making the transition and compensate losers in the process of globalisation.

At the internal or domestic level the concern with the social question has not gone much beyond attempts to put in place social safety nets or other measures similarly designed to protect the vulnerable or those negatively affected by macro-economic developments and changes. More recently, increased attention has been given to the problem of poverty, and several countries – encouraged and supported by international donor agencies – have been seeking to put in place programmes for poverty alleviation, reduction and even eradication. The limited reviews and assessments of these programmes in the English-speaking Caribbean suggest, however, that not only is their impact and reach very limited, but their linkage with social and human development – as defined earlier - is at best tenuous.

The Development Strategy of the OECS asserts that as the member countries try to adjust to a more liberalised international environment, it is now necessary to:

Emphasise strengths and opportunities, as opposed to weakness and threats. While the latter will always play an important part of the process of development, it is felt that a more positive approach would be to seek to maximise the sub-region's potential and exploit its richest endowments.

If policy is to move beyond the search for special considerations and buying time, considerably more attention will need to be given to the synergy that is possible when the interaction between social and economic development is allowed to develop and flourish. Economic policy initiatives and policy agendas must therefore carefully consider the social, institutional and human development needs for countries to successfully compete in the changing international order.

The overall objective and approach has been clearly stated in the OECS Development Strategy:

> The end of development, that is the empowerment of people is best achieved by ensuring their continual access to material, emotional and spiritual comfort. Therefore, development is seen as a process that is equitable and sustainable and that allows people to realise their potential, build self-confidence and lead lives of dignity

The OECS Member States recognise the need for deliberate policies for building capacity at all levels, and for determining the mix of economic activities in which these economies can be internationally competitive. The Medium Term Economic and Social Strategy Papers, which represent the national responses to these difficult circumstances, and the OECS Development Strategy, which is a regional attempt to develop a strategic vision for the future all endorse the human development approach described in the UNDP reports. At the same time, they have sought to focus attention on the specific challenges in the OECS region [See Box B]. Recognising the need for greater economic diversification, as well as more social and economic resilience, the OECS Development Strategy calls for a greater focus on the services sector (financial, tourism, telecommunication and other business ser-

STRENGTHS VERSUS WEAKNESSES, OPPORTUNITIES VERSUS THREATS, AND THE PRODUCTIVE INTERACTION BETWEEN SOCIAL AND ECONOMIC DEVELOPMENT MUST BE EMPHASISED

vices), as well as the traditional and non-traditional agricultural sectors. Successful and internationally competitive production are therefore expected to require, *inter alia,* intensive human resource development, investment promotion, the integration of production and marketing activities, poverty reduction, and a supportive institutional and legal environment.

Articulation of the ideal, and actual implementation do not however always go hand-in-hand, and as the former President of the Caribbean Development Bank has noted:

> in practice there has often been a dissonance between the social policy implicit in the economic growth agenda and the explicit social agenda for promoting greater equity that is articulated by the governments of the region.

Box B.

The Development Vision - OECS

- Sustainable self-reliance
- Equal opportunities for being productive and having productive livelihoods;
- Employment for all;
- Poverty eradication and the elimination of social and economic inequities
- Equal Education opportunities;
- Health for all;
- Safe physical and sustainable environment
- A democratic society with a system of fairly and justly enforced laws;
- Freedom of movement - including labour and capital;
- Social partnership for development.

The development of the capabilities for successful pursuit of a knowledge and service-based development strategy will require a great deal of sensitivity to some of the dilemmas and/or challenges in the following areas:

- Human Resource Development

  The attempts at human resource development in support of advancement of the higher value-added services must necessarily recognise that one of the unmistakable characteristics of the latter half of the century is the emergence of knowledge-intensive activities as a major proportion of the world economy. Attaining competitive advantage here will therefore not be easy, and will require considerable and well targeted social and human investments if the wide gaps that currently exist between the situation in the developed world, and that in these small developing countries are to be closed in any way. States in the Eastern Caribbean have initial knowledge, technology, institutional capacity, and leadership that are too low relative to the dominant countries of the world. Small size – although, more often than not, seen as a problem - could nevertheless be turned to advantage depending on the social and economic strategies utilised. Size, after all, is not a constraint to survival.

  There must therefore also be a more productive interface between work effort, social management and institutional development, and the production, generation and application of knowledge to economic pursuit. In this connection, the types and levels of social capital required for sustained economic development, and which may be generated in the Caribbean context needs to be better understood.

- The Growth of a Flexible and Mobile Labour Force

  Survival and development - especially in the face of rapid changes in the international environment, and in the context of growing international competitiveness – will depend on the social capacity to make and absorb change, the dynamism of the local knowledge system, and the technological and entrepreneurial virility of the countries The

capacity and ability to be flexible and adaptable should extend to the area of employment and work. In the OECS, insecurity of employment is a major source of difficulty for many who must rely on short-term and seasonal work. Certainly, growing access to economic opportunity, and full or high employment is therefore critical. The OECS Member States' recent decision to establish an OECS economic union and to facilitate free movement of labour and capital will certainly help to open new business and job opportunities for all citizens within the region.

- Self-reliance

  Much of the discourse on development for open economies is often set against the standard of autarky or national self-sufficiency – a condition which has some historic precedent. Against this background, the development ideal would be to rid the economy today of its dependence on international trade and investment. However such a standard would not be helpful in the case of the OECS, since these economies were never closed, and do not possess the institutions, the life-style, or the resources to practice self-sufficiency. Increasing self-sufficiency has therefore not been a realistic aspect of development in the OECS, especially since these countries would benefit by integrating themselves more deeply into the international community. However, there is now more emphasis on increasing self-reliance: it is a goal and method of human development, as the OECS countries prepare to deepen regional integration and establish an economic and political union – the Eastern Caribbean Union of Independent States (ECUIS).

  In this effort it is important that as greater integration into the international environment is sought, attention is also given to the development of the capacities for *resilience* in the face of external threat and hazard. This strategy will also strengthen the capacity to cope with, and overcome endogenous stress and fracture.

- Sharing of Services

  The development of a service sector in the OECS region with the capacity to compete internationally, will need to be able to depend on complementary production, and the sharing of some services.

- *Infrastructural development*

  Focus on services will also require an adequate infrastructure, particularly in telecommunications, and transportation – within the societies, as well as with the rest of the global community.

- Sustainable use of Natural Resources

  Like most small island economies, the OECS countries must always be aware of the fragility of the ecosystem. A service-based development strategy makes this even more crucial. Natural resources can be depleted, or become obsolete because of inappropriate or backward technology, and/or social and economic inefficiency.

- Maintaining a Safe Environment

  A service-based development strategy is unlikely to either attract and keep consumers of its products, or have at its disposal a labour force with the requisite social and economic skills, if the surrounding environment is one in which threats to physical safety are beyond reasonable levels, or in which social inequities encourage and support dissent and hostilities.

In general, there are perhaps two major problem areas that need to be tackled if satisfactory progress is to be made, and if

INTERNATIONAL COMPETITIVENESS REQUIRES A STRONG KNOWLEDGE-BASED ECONOMY

BALANCING THE GOALS OF SELF-RELIANCE WITH THE NEED FOR GREATER INTEGRATION INTO REGIONAL & INTERNATIONAL SYSTEMS

these countries are to be able to sustain a defined growth path over a period of time. The first has to do with the apparent lack of consistency between the trade policies and the development objectives. While all states are aware of the need to adopt more liberal regimes, concerns about the adverse impact on economic activity and employment forces caution in the dismantling of protective domestic trade. The second flows from the need to readjust the development orientation away from one that places social development in a derived and consuming role, and towards one that gives it greater equality and autonomy in development strategies. To assist this shift in orientation at policy-making, and implementation levels, a more precise and sensitive understanding of the dynamic relationships between social and economic development may be necessary.

5. Outline of the Report

More detailed examination of the issues and approaches just discussed will take place in the ensuing chapters. Thus, Chapter 1 will describe the current social, economic situation and challenges in the OECS region – especially in light of the general need to improve the capacity to effectively compete in the international environment. In Chapter 2 there will be a more specific discussion and analysis of the meaning and measurement of Human Development in the OECS region. In this chapter, attempts will be made to adjust the development indices in ways that could make them more sensitive to Caribbean circumstances. Data limitations make this a cautious exercise; but it is nevertheless possible to draw some tentative conclusions about what would appear to be the pressing policy issues, and about the paths that need to be taken if there is to be adequate policy analysis, measurement, monitoring, and assessment. In the other four chapters (i.e. Chapters 3-6 – Employment, Education, Health and Poverty) specific sector situation analyses are carried out: here, focus is on challenges and opportunities for building capacity and competitiveness, and also on the importance of the factors selected for incorporation into the Adjusted Human Development Indices.

CHAPTER ONE

The social, economic and political situation

As the globalisation process accelerates and becomes more all encompassing, a number of international agreements have been put in place to assist developing countries achieve a better integration into the global economy. In the examination of the current socio-economic situation in the OECS region that follows it will be seen that while several of the countries have been able to take advantage of some of the opportunities offered by the new international environment, the productive and manufacturing sectors have not often fared very well, and in the areas of technological and human development the member countries not only continue to lag far behind those in the more developed countries, but are also well below the standards and levels deemed desirable. Emphasis must therefore be on an identification of the gaps and needs that must be addressed if the countries are to be able to attain the development goals specified, and also compete more successfully in the international environment.

THE OECS REGION EXPERIENCED GENERALLY POSITIVE BUT MODEST ECONOMIC GROWTH

1. Economic Structure and Performance

The importance of sustained economic growth is unquestionable. In Table 1.1 and Chart 1.1 [See also Table 1.2 – Appendix II] figures showing the real GDP levels and rates of growth (1990-2000) of the countries within this region are shown. While the economies – with the exception of Montserrat and Anguilla - have been able to maintain positive growth rates during the decade of the 1990s, in several instances the trend has been downward, and in general, the growth rates of the 1990s are well below those recorded in the 1980s. During the period 1986-2000 the OECS economies grew at an average of 4.5% annually. However, this statistic masks the variations in performances achieved over that period, and the economic performance over the period can in fact be divided into two distinct periods.

The period 1986-1989 was a period of high growth, during which the economy experienced real growth averaging over 6% annually. This occurred in spite of two recessions in the developed countries at both ends of the decade and the impact of destructive hurricanes. The growth in the economies was due to the conjuncture of favourable circumstances the principal ones being:

- Expansion in agricultural production as a result of trade preferences and favourable exchange rate movements. High prices on the European market and favourable movements in the nominal exchange rate of the pound

Table 1.1:
Real GDP in the OECS (US$ million), 1991-2000

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Anguilla	53.8	57.9	62.4	67.9	67.1	69.1	76.9	80.1	87.1	68.67
Antigua/Barbuda	399.5	402.9	424.7	451.5	432.7	461.2	485.4	501.3	519.6	462.9
British Virgin Islands	124.4	127.5	132.1	136.7	141.8	n/a	n/a	n/a	n/a	n/a
Dominica	167.3	170.8	173.6	176.1	179.6	184.3	187.1	196.0	196.3	168.4
Grenada	226.2	225.5	219.5	225.6	231.2	240.6	251.7	275.8	297.0	258.5
Montserrat	56.6	56.6	55.0	57.1	52.8	41.3	32.5	29.4	29.5	22.0
St. Kitts/Nevis	165.1	165.1	176.1	185.1	191.9	204.4	218.3	220.8	227.1	208.7
St. Lucia	450.1	450.1	452.1	458.0	462.9	477.2	471.5	491.8	517.0	437.3
St. Vincent	213.1	213.1	218.0	213.8	229.8	233.2	241.7	254.1	265.6	230.3

Sources: ECCB (2001); Social and Economic Indicators, Caribbean Development Bank 2001. Note: The exchange rate – US$1.00 = EC$2.70

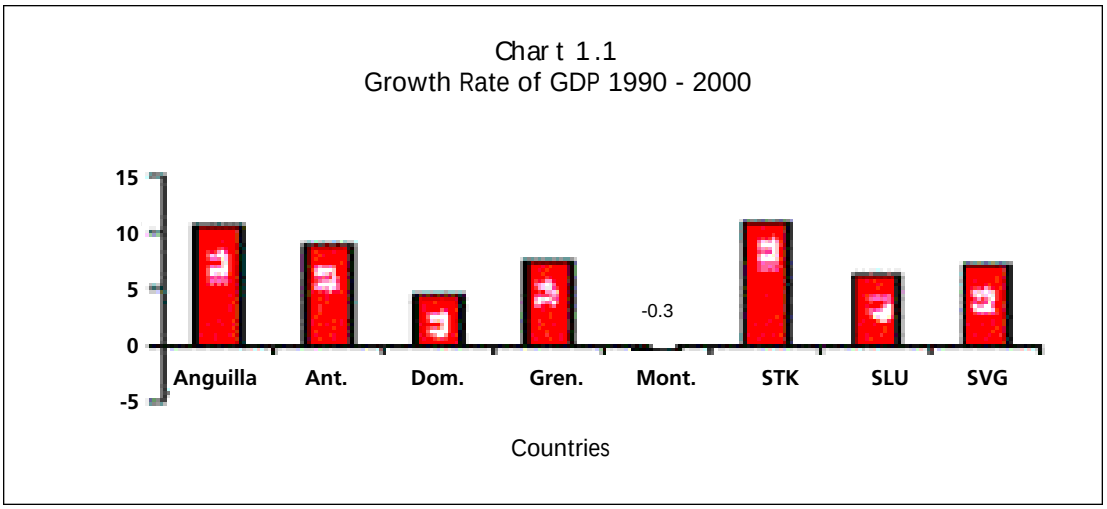
Table 1.2:
Growth of GDP in the OECS and other selected countries, 1990-2000

Country	1990	1991	1993	1994	1995	1996	1997	1998	1999	2000
Anguilla		-3.6	7.5	7.1	-4.2	3.5	9.2	5.2	8.7	-0.7
Antigua & Barbuda	n/a	2.7	5.1	6.2	-5.0	6.1	5.6	5.0	4.9	2.5
British Virgin Islands*	n/a	5.4	5.7	13.6	10.4	10.4	13.7	6.7	6.9	4.4
Dominica	6.3	2.1	1.9	2.1	1.6	3.1	2.0	2.8	1.6	0.2
Grenada	5.2	3.6	-1.2	3.3	3.1	2.9	4.2	7.3	7.5	6.4
Montserrat	n/a	-20.9	2.5	0.9	-7.6	-21.5	-20.0	-10.1	-12.6	-6.7
St. Kitts/ Nevis	n/a	2.3	5.4	5.4	3.5	5.9	7.3	1.0	3.7	7.5
St. Lucia	4.2	0.1	1.1	1.8	1.7	1.4	0.6	3.1	3.5	0.7
St. Vincent	6.7	1.4	1.8	-2.9	8.3	1.2	3.1	5.7	4.2	2.1
Barbados	-3.1	-4.1	1	4	2.5	4.7	3.1	4.3	2.5	n/a.
Belize	8.9	4.2	4.3	1.5	3.8	1.5	2.9	1.5	5.7	10.5
Cuba	1	n/a	-15	0.7	2.5	7.8	2.5	n/a	n/a	n/a
Dominican Republic	-4.8	-0.5	3	4.3	4.8	7.3	8.2	7.9	7.9	n/a
Haiti	-0.6	-1.4	-2.4	-8.3	4.4	2.8	1.1	3.2	2.4	n/a
Jamaica	4.8	0.2	1.4	1.1	0.5	-1.7	-2.4	-0.1	0.7	0.8
Suriname	0.2	n/a	-4.4	-4.2	5.2	3	5.6	12.5	2.3	n/a
Trinidad and Tobago	0.2	1.8	-1.5	3.6	3.8	3.5	3.2	5.3	7.8	4.0[P]

P = provisional
Source: Barbados, Belize, Cuba, Dominican Republic, Haiti, Jamaica, Suriname, Trinidad and Tobago- UNECLAC (1999a/ 2001); OECS Data Bank- ECCB Annual Statistical Digest (2001). *Data from BVI Development Planning Unit; Central Bank Reports, Belize, and Trinidad and Tobago. 2001, 2000; Economic and Social Survey of Jamaica, 2000.

sterling vis-à-vis the Eastern Caribbean Dollar (EC) dollar resulted in expansion of production of bananas and significant increases in foreign exchange earnings. During this period, the contribution of agriculture to GDP was at its highest in recent times;

- Growth in tourism due to the expansion in the infrastructure (airports and hotels) largely funded by concessional financing and Foreign Direct Investment (FDI);
- Improved fiscal performance of most of the OECS countries;
- Increasing economic integration both at the OECS and CARICOM level which implied freer trade among the states; and
- The ability of the OECS countries to



Source: ECCB Annual Statistical Digest, 2001

attract concessionary external financing from multilateral and bilateral donor agencies.

During the 1990's, real growth rate in the OECS countries fell off drastically - averaging about 2 per cent. This was mainly due to the international recession of the early 1990s but also reflected some of the structural weaknesses of the economies. These weaknesses include:

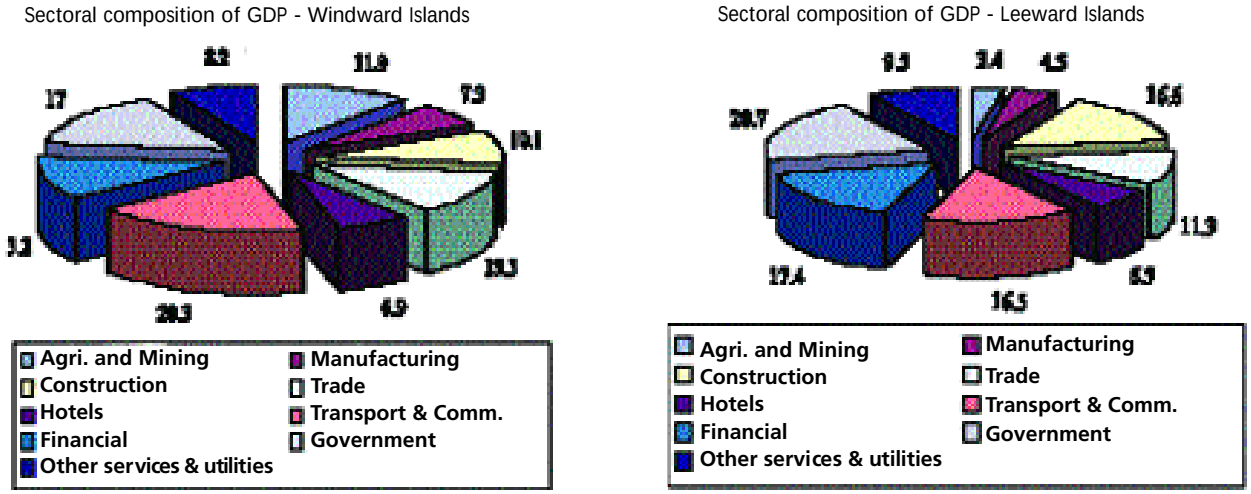
- The narrow resource base and consequently the export concentration of the economies.
- Protective trade regimes under which the OECS operated and the subsequent impact on their competitiveness and inhibition to structural changes.
- Heavy reliance on the government sector for growth and development, and growth largely driven by the Public Sector Investment Programme (PSIP) of these countries.

In general, the economies have shown some degree of diversification in recent years.

The agricultural sector is still of relatively greater importance in the Windward islands, but what seems clear is that all the economies have been restructured away from agriculture and manufacturing towards the provision of services [See Chart 1.2, and Table 1.1 Appendix II].

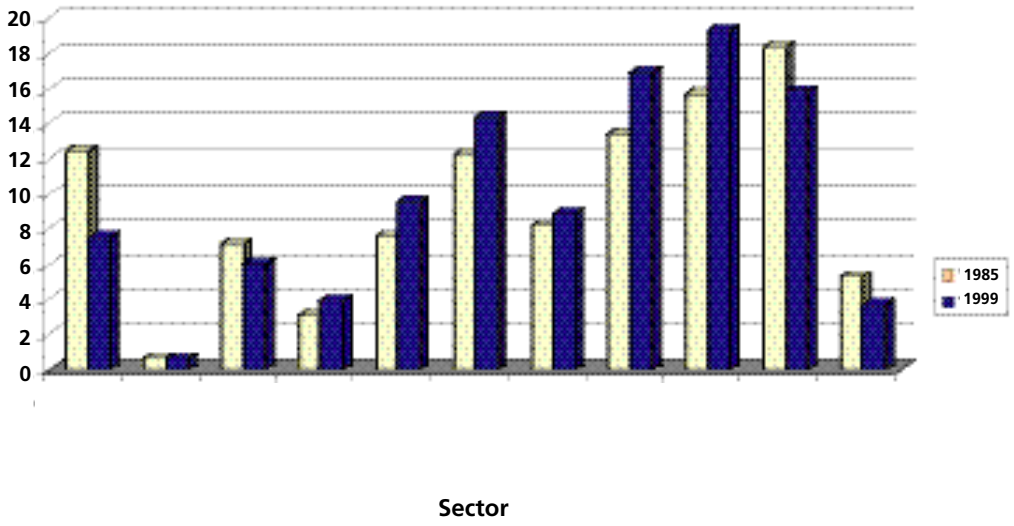
IN SPITE OF SHIFTS IN THE CHARACTER OF THE ECONOMIC ACTIVITIES IN MANY OECS COUNTRIES, MOST HAVE RETAINED THEIR MONO-CROP/ COMMODITY CHARACTER

Chart 1.2
Sectoral Composition of GDP



Source: ECCB Annual Statistical Digest, 2001

Chart 1.3
Changes in sectoral composition - GDP - 1985, 1999



Source: ECCB Annual Statistical Digest, 2001

With respect to the sectoral changes in the economy, over the 1985-1999 period the following can therefore be observed (See Chart 1.3)[ECCB 2001][1]:

- Agriculture has declined significantly over the period. The heavy dependence on agriculture during the 1970s and 1980s – when this sector contributed some 20% of GDP in 1977 - has been reduced, as it now (1999/2000) contributes only approximately 8 per cent.
- On the other hand, growth in the services sectors has been fairly rapid - especially in the area of tourism, construction and communication services. The Hotels and Restaurants sector, which serves as a proxy for tourism, grew from 8 percent in 1985 to 10 per cent in 1998 – though falling back slightly to 8% by 1999.
- Similarly, the construction sector expanded rapidly – from 8% to 11% - fuelled by expansion of the tourism plant to cater for the increased demand in the tourism sector and public sector investment. The growth of the tourism sector has contributed to the structural transformation of the economies to more service oriented ones.
- The contribution of the Manufacturing sector declined from 7.4 to 6.0 percent.
- Government services declined from 18% to 16%.
- Communications and financial services are now two of the fastest growing sectors in these economies. Both sectors moved, on average, from 16% to 19%. Notwithstanding these achievements, in almost all of the countries, output would appear to be very volatile. This is confirmed by the results of stability tests reported in Table 1.3. The data show that St. Lucia is perhaps the most stable (albeit at a low growth rate level) of all these economies - followed by Grenada, and Antigua.

2. The Importance of Economic Diversification

In order to survive the vagaries of globalisation and liberalisation, small states like the OECS must re-position themselves in a relatively short space of time. The major

problem facing the OECS is the diversification of economies whose small size militates against this. This objective is essential to reduce economic fluctuations, mitigate risk and to create variety in employment opportunities for the citizens of the region.

Economic diversification may be viewed in two ways. In the first case, there is diversification that may be necessary to transfer out of aging, unprofitable industries and into new, dynamic and viable industries. This type of diversification is usually a purely temporary measure and would have been achieved when the transition period is over. It is apparent that this type of diversification would be necessary in the banana industry in the Windward Islands and the sugar industry in St. Kitts and Nevis; particularly in light of ongoing developments in the global economy.

The second type of economic diversification is undertaken to reduce the vulnerability of the economy to external market shocks. Here, the country attempts to diversify the risk associated with the cyclical movements in particular lines of activities by engaging in a variety of economic activities that are not closely correlated with each other. This is similar to portfolio risk diversification. However, this form of diversification could also have the effect of reducing the level of specialisation and consequently, result in higher production costs. In the context of small-island developing economies such as the OECS, diversification and lower cost may be simultaneously achieved via economic union.

The positive effects of this type of diversification can be achieved in three ways:

i. Joint production and marketing of a given product or service - for example, the production and marketing arrangement associated with the banana industry in the Windward Islands, or the development of multi-island tourist packages.
ii. The use of monetary arrangements such as those in the Eastern Caribbean Central Bank, which allows the member countries to reap the effects of economic diversification without actually producing the commodities. Thus, for example, Anguilla can reap the effects of Grenada's nutmeg production without actually producing nutmeg via the pooling of the international reserves of the region.
iii. The development of capital markets which allows investment in industries across the region also has a similar effect, since a resident of Anguilla can invest in nutmeg production in Grenada and his income would not be severely affected if nutmeg and tourism are negatively correlated.

3. Engaging in Regional Integration

The OECS Member States have for many years recognised the importance of integration and the benefits that may arise as a result. In light of this, they had undertaken in 1991 to establish closer economic ties through the establishment of an OECS Single Market and Economy (OSME). Under this arrangement, measures relating to the free movement of goods, services, capital and persons were put in place. In addition, some activities relating to intellectual property, industrial property and copyright legislation were undertaken.

However, although OECS Member States committed themselves to establish an OSME to become effective in 1993, decisions at the CARICOM level in partic-

SURVIVAL AND BENEFICIAL PARTICIPATION IN THE GLOBAL ECONOMY REQUIRES ECONOMIC DIVERSIFICATION AND FLEXIBILITY

A CLOSELY INTEGRATED OECS REGION HOLDS MANY BENEFITS FOR COMPETITIVE PARTICIPATION IN THE INTERNATIONAL ARENA

ular the post 1992 movement to tariff liberalisation had the effect of converging the CARICOM and OECS common market arrangements. In addition many persons are of the view that the small size of the OECS market, in the context of global trade liberalisation, rendered impracticable the notion of a single OECS market.

The OECS Member States as members of CARICOM have therefore been engaged in the establishment of the CARICOM Single Market and Economy (CSME) which consists of the following elements (or protocols) undertaken through a series of parallel activities:

- Free trade in goods,
- Free trade in services
- Free movement of capital
- Free movement of labour
- The right of establishment
- Macro economic coordination
- Support mechanisms including institutions and structures including a scheme for disadvantaged countries, regions and sectors.
- A public education programme

The OECS Member States have therefore signed on to the institutional and legal framework for trade in services, rights of establishment and movement of capital that exist within the Caribbean Community's Single Market and Economy. This is contained in Chapter III of the Revised Treaty of Chaguramas. These arrangements provide, inter alia, for the establishment of a programme for the liberalisation of services in the single market and economy, which took effect on March 01, 2002. It has also been agreed that all restrictions on trade in services will be removed by 2005.

Notwithstanding the fact that OECS Member States have adopted many elements of the CSME programme in order to facilitate the development of their markets, they remain convinced that the development of an OECS economy is imperative in the emerging economic environment. The trends indicate that political and economic structures have become more regional and international. It has been recognised even within the CARICOM arrangements that because of their small size and vulnerability, close cooperation and coordination among OECS countries is essential in order to compete with the more developed countries within CARICOM and at the international level. It has therefore been agreed that the countries need to continue to forge closer integration of their development efforts. Hence, the OECS countries have continued their commitment to realise their vision of a more integrated sub-region.

3.1. OECS Economic Union

With this in mind, the OECS Authority at its 32nd Meeting, held in Grenada in May 2000, mandated the OECS Secretariat and the Eastern Caribbean Central Bank (ECCB) to undertake conceptual work regarding the creation of an OECS Economic Union. Further, at its 34th meeting, held in Dominica in July 2001, the Authority agreed to the establishment of an Eastern Caribbean Union of Island States or alternatively, a Union of Eastern Caribbean States. Pursuant to the Authority's mandate regarding the establishment of an OECS Economic Union, the Secretariat prepared a proposal for an Economic Union Project for which funding in the amount of US$1 million was secured. The Economic Union Project will be implemented over a two year period (January 2002 to January 2004) and will involve (i) establishment of an Economic Union Unit, (ii) conducting a number of studies, (iii) convening national and

regional consultations and (iv) public relations activities.

At this 34th meeting, the Authority also addressed the issue of movement of people within the OECS and agreed that the formulation and implementation of arrangements to facilitate the freer movement of OECS nationals among Member States should be expedited. Then, at the Authority's 35th Meeting, held in Anguilla on January 31st and February 1st 2002, it was agreed that the necessary legal and administrative arrangements to facilitate travel within the OECS would be implemented in March 2002. Also, the Authority agreed in principle to exempt OECS nationals from Alien Landholding License requirements. To give effect to these decisions and arrangements, the participating Member States have undertaken to amend the relevant legislation in their respective parliaments.

The deepening and strengthening of the integration process within the OECS region provides an opportunity for enhancing the productive capabilities of the area as a whole. This can come about, *inter alia*, through the pooling and sharing of production and marketing activities for goods and services produced therein. This will also contribute to the ongoing process of economic diversification in the OECS, which, while showing encouraging signs in recent years, needs to be further expanded and strengthened.

There has been an observable shift in the structure of the economies towards provision of services. The data show that between 1994 and 2000, the structure of the OECS economy moved overall from being dominated by agriculture and some manufacturing, to tourism, transportation, construction (much of which was tourism related) communications, and finance). But this is not likely to change significantly the openness of the economies and their dependence on foreign trade. Available data further indicate that exports of goods and services averaged about 65% of GDP, while imports of goods and services exceeded 70% of GDP. Table 1.4 reports the flow of exports, while Chart 1.3 shows the changing sectoral composition of the GDP. But there is still, even in this process, a concentration of a single dominant activity or sub-sector.

This is a clear illustration of one of the characteristics of small states – the high level of trade dependencies, as well as small domestic market size and production capacities. Nevertheless, this does signal the capacity of these economies to adjust and to adapt, and suggests that with appropriate policies in place, continued economic diversification is possible.

OECS Economic Union Project

The main components of this project will include the following:

- Technical studies in areas such as:
  - Free trade and free circulation of goods;
  - Movement of natural persons and related social policies
  - Movement of services and capital
  - Monetary and fiscal policies;
  - Development of strategies and policies
  - External trade and external relations; and
  - Legal, institutional and other governance arrangements.
- National and regional consultations for consensus building.
- Preparation of documentation and publications as per the studies and other materials relevant to the economic union process.
- Public information campaign to inform and sensitize the OECS public.

4. Sectoral Performance

4.1. Agriculture

The Agricultural sector in the OECS can be described as going through major structural transformation. The declining foreign exchange earnings from bananas and the concomitant pursuit of alternative employment away from the industry coupled with the WTO challenge to the EU banana regime in the Windward Islands; and the restructuring of the sugar industry in St. Kitts and the competition with other sectors especially tourism, are part of the contributory factors to the changes. The many challenges of the EU banana regime in the WTO in the recent past, the agreement on agriculture and the consequent price reduction due to trade liberalisation, could hasten the demise of both the banana and sugar industries of the Member States.

The EU had devised a system for the distribution of licences so that all producers would benefit from the economic rent associated with the licensing arrangement. Thus, the Windward Islands banana industry was awarded two levels of support through the EU banana regime: the duty-free quota and the tariff quota imposed on Latin American bananas. There was also support through the licensing system, which allowed the Windward Islands the possibility of sharing in the economic rent of the licensing system. Both prongs of support allowed the Windward Islands reasonable access to the UK market and indirectly granted a measure of price support since the market was essentially regulated. Through the WTO, this was challenged by Latin American producers - the effect of which has been that Windward Island bananas are more exposed to greater competition from lower-cost producers; this in turn has had a dampening effect on banana prices.

With respect to sugar cane where, under the Sugar Protocol of the Lomé Convention, market access but not the price is guaranteed, production levels have nevertheless been inadequate. The industry once important in all OECS countries is now important only in St Kitts, where sugar production declined steadily over the decade of the 1980s, and is currently well below the break even output level. The high cost of production, labour shortages and inadequate financing for modernisation are the main causes of the problem.

Non-traditional exports of agricultural products continued to decline in the late nineties. This was due in part to the reduced market in Trinidad and Tobago

Table 1.4:
Major OECS exports; selected countries, 1991-1999

Country	1991	1992	1993	1994	1995	1996	1997	1998	1999
Dominica	29.94	30.51	24.12	20.37	16.72	16.49	15.36	13.71	14.22
Grenada	3.60	2.88	1.79	2.41	1.93	0.60	-	0.03	0.12
St. Lucia	54.67	68.44	51.07	42.86	47.44	46.59	27.61	33.89	32.23
St. Vincent	33.49	37.55	22.96	14.75	22.69	19.42	13.74	20.57	18.94
Tourism Expenditure									
Dominica	23.43	25.85	29.37	32.44	34.12	36.60	39.55	46.53	48.80
Grenada	54.47	55.84	63.64	77.61	76.23	78.64	81.13	85.83	93.15
St. Lucia	144.14	165.63	177.58	207.15	229.50	236.58	253.30	277.64	272.60
St. Vincent	28.92	41.09	43.97	44.01	52.89	64.03	69.14	73.22	78.86

Source: ECCB

and the re-orientation of the OECS member states towards increasing domestic production for food security and import substitution.

Exports of agricultural produce from the OECS continue to be dominated by the Windward Islands. Trinidad and Tobago continues to be the single most important market for the OECS. In 1997 more than half of the sub-region's non-traditional exports was moved to Trinidad, Barbados, the French Antilles and the OECS. Attempts to penetrate and gain market share in the North American and European markets are continuing. Small volumes of produce, which initially catered to ethnic preferences, are being exported.

The future prospects for agriculture in the OECS appear to be very challenging. The structural features of the sector (small fragmented holdings, insecurity of tenure) limit the optimality of the enterprises. The inevitable move towards open and liberal trade will induce increased pressures of competitiveness on the agricultural sector in the OECS and the region as a whole.

The OECS Member States are working towards addressing the problems and constraints, which affect the sector. Initiatives, which seek to improve the effectiveness of the OECS diversification program, are being clarified and elaborated in the context of a changing economic environment.

4.2. Commercial Fisheries

The fisheries sector in the OECS operates at a level below its full potential. Some countries have made great strides in the development of the fisheries industry and have improved the infrastructure with a consequent increase in the output of fish. However, the fishing industry still retains its small scale, artisanal structure, which produces mainly for the domestic market. Even here, inadequate supplies and storage facilities, in addition to poor processing and distribution channels in most of the countries, result in substantial excess demand for fish. In recent years, larger and more mobile boats have been introduced into the OECS region, and fisheries has become a growth sector in some economies, which has resulted in the exports of fish, primarily from Grenada, St. Vincent and the Grenadines, and Antigua-Barbuda to North American markets. This suggests that, with increased investment in better-equipped vessels, landing, storage and processing infrastructure to increase the value added to production, the fishing industry could contribute more to the development of the OECS countries. In recent years, some OECS countries have been receiving assistance from Japan to aid in the development of their fishing industries.

Table 1.3
OECS non-traditional agricultural exports by Major Destination 1997 (tons)

Country	UK	USA	T&T	B'dos	Holland	N.A.	OECS	French Antilles
Dominica	513	158	-	814	10.0	-	1991	1842.0
Grenada	-	-	-	-	-	-	-	-
St. Lucia	1141	149	99	1446	0.8	-	146	0.5
St. Vincent	419	665	5082	-	-	415	298	332.0
Total	2073	972	5181	2260	11.2	415	2435	2174.5

Source: OECS Export Development Unit (EDU) 2000

4.3. Manufacturing

The manufacturing industry in the OECS can be divided mainly into enclave, traditional import substitution, and agro-processing firms. The enclave sector produces mostly apparel, textile, and electronic components for export, mainly to the US. The enclave subsector is considered to be internationally competitive, but its contribution to the economy is limited since (most of their inputs are imported) the value it adds to real output is low. The production of the import substitution subsector is geared mainly to the local and regional markets, and includes beverages, paper and paperboard products, chemicals, and plastic and rubber products. This sector is considered to be highly uncompetitive and depends on high levels of effective protection for its survival. The agro-processing sector makes use of mostly locally produced agricultural products for its raw material. Fruit jams, sauces, condiments, confectioneries, banana chips, milk and meat products, spring water, pasta products, copra and its derivatives are some of the products that are being processed. The sector is said to be suffering from excess capacity, outdated technology, and a low level of technical skills.

The manufacturing sector in the subregion is mostly comprised of small firms. For example, in St. Lucia's furniture subsector there are 40 firms employing an average of 6 workers, while in agro-processing there are 19 firms employing an average of 18 workers. In contrast, there are only 7 firms employing more than 100 workers, and most of them are concentrated in the electronics and garment subsectors. It is usually the export-based companies – including the food, beverage and tobacco companies – that employ more than 100 workers.

Recent studies have identified the following constraints affecting the competitiveness of the manufacturing sector. These may be classified in the following areas:

- Human Resources: poor work ethic and a shortage of skilled workers;
- Institutional support facilities and services: arbitrary allocation and slow granting of fiscal incentives; considerable delays in customs clearance and issuing work permits; weak technical assistance for small firms, export promotion, and quality control;
- Finance: lack of working capital financing which hampers bulk imports and purchases of good quality inputs; and lack of medium-term capital, hindering technological improvements;
- Infrastructure: the high cost of utilities (electricity, water, and telecommunications); high port and shipping charges; poor maintenance of factory shells and roads in industrial estates;
- Productivity and internal inefficiencies. It is important to note that the nature of the competitive lag of this sector more relate to operations within the respective firms than to broader obstacles such as high freight costs, delays at ports of entry, or expensive raw material supplies. There are several other problem areas. These include the diseconomies of scale for domestic firms producing exclusively for domestic market; obsolete machines; lack of proper production records, inventory of raw materials, tracking of work in progress and machine maintenance records; operators' performance hampered by cramped space, poor layout of work areas; hierarchical styles of management; and bottleneck-inducing machine and equipment repair

processes;

- Quality Control: lack of standards specifications, and purchasing of low quality inputs. Indeed, most OECS companies use home company quality standards, and have only just begun to improve the techniques needed to meet ISO standards

Recommendations underscore the need for OECS countries to adopt a new industrial policy that focuses on exploiting the possibilities for efficient import substitution, and which promotes industrial deepening through technological upgrading, and the correction of the internal operational deficiencies.

The OECS through the efforts of its Export Development Unit (EDU) continues to assist OECS Member States to develop the manufacturing sector in their respective jurisdictions. This assistance is provided through programmes such as:

- In-firm Technical Management and Product Development Assistance: the overall objective of this programme is to improve the competitiveness of OECS Manufacturing firms by providing direct support in the areas of production and development and management enhancement. In particular, the EDU continually assesses the capabilities of enterprises in production and management with a view to identifying their technical assistance requirements. Also, the EDU delivers focused technical assistance to companies in order to enhance the enterprises' ability to manufacture a competitive product and also to diversify their product base. Finally, the EDU provides training in production technology and management to enhance the OECS manufacturing companies' production and management skills.
- Trade, Marketing and Promotional Assistance: this programme seeks to increase awareness of OECS firms in the regional and international trading environment and to assist in providing support to current and potential OECS exporters by formulating and implementing marketing plans in order to enhance export performance. In particular, the EDU promotes trade through the identification and facilitation of business opportunities in targeted regional and international markets. Also, the EDU promotes the networking/clustering of selected OECS companies to facilitate group marketing strategy development and promotional activities.
- Market Intelligence and Support Services: The key element of this programme is the improvement of the competitiveness of OECS companies through market research and promotional activities. Having generated market intelligence information through its market research activities, the EDU will determine which export commodities to promote in specific markets. The information is also useful in the analysis of competitors and the standards of products in the particular market.

NEED FOR A NEW INDUSTRIAL POLICY THAT FOCUSES ON EXPLOITING THE POSSIBILITIES FOR EFFICIENT IMPORT SUBSTITUTION; PROMOTION OF INDUSTRIAL DEEPENING THROUGH TECHNOLOGICAL UPGRADING, AND THE CORRECTION OF THE INTERNAL OPERATIONAL DEFICIENCIES

4.4. Tourism Services

Tourism is the only OECS industry that can claim to be internationally competitive, as it thrives without the protection and preferential treatment that have characterised the development of agriculture and manufacturing in the sub-region. The competitive advantage of the OECS countries in Tourism is due largely to their natural attributes.[1] The sub-region has some considerable competitive advantage by virtue of its natural, historical and cultural resources; its relatively pristine environ-

ment; and its proximity to the major North American market. However, the sector is plagued by some major weaknesses, some inherent to the industry itself and others that derive from the OECS countries, as host destinations. Included among these weaknesses are the:

- Vulnerability to economic shocks in the source markets, as well as its susceptibility to natural disasters in the destinations;
- Over-reliance on foreign airlines to bring visitors to the region; the attendant unpredictability of the services provided by these airlines; and the unreasonable restrictions placed by these airlines, on seat availability;
- High import content of tourism expenditure leading to leakage of needed foreign exchange earnings;
- Insufficient hotel rooms, relative to demand;
- High failure rate of small hotels;
- Inadequate/inappropriate policy, planning and institutional mechanisms to enable the adoption of integrated approaches to tourism development, that balance economic growth with human and social development, and preserve the natural environment, cultures, and heritage of local communities;
- Poor rate of efficiency in generating foreign exchange from tourism, which is lower than the world average and that of competitor destinations;
- Absence of effective measures to strengthen backward and forward linkages between Tourism and other productive sectors of the economy;
- Lack of diversity in the entertainment content of the tourism product;
- Limited opportunities for meaningful participation by the local populace in the industry;
- Limited involvement of private sector actors, local communities and NGOs in tourism development activities.

As may be seen in Table 1.1 above, in some of the countries such as St. Lucia and Antigua the tourist sector is now a dominant sector. In fact, most of these countries receive a very large share of world tourism arrivals. Over the past 20 years, the Caribbean (Caribbean Tourism and Research Organisation, CTO member countries), though having less than 1% of the world's population, have consistently received more than 6% of world tourist arrivals.

4.5. Financial Services

The Offshore Financial Services sector is another major growth area for many OECS countries. Currently all OECS Member States have in place offshore jurisdictions. Offshore instruments are used to facilitate asset protection and distribution, to improve international trade efficiency and for tax administration and/or deferral. Besides earning foreign exchange for the economy and contributing directly to government revenue, the sector creates employment, develops human resources and encourages the growth of technology in host jurisdictions.

The sector has proven to be very important economically as a major revenue-generating agent, especially in the first tier jurisdictions, in the Caribbean.[2] There are approximately 70 offshore financial centres worldwide; the size of the global offshore services industry ranges from between US$5 to US$6 trillion and the offshore centres of the Caribbean command approximately a third of this money.

In the main, OECS offshore sector jurisdictions are booking centres serving, in this regard, as platforms where 'shell

branches' of international financial institutions record their financial transactions. However, in addition to low-end market transactions, activities in these centres also extend to those in the high-end of the market such as international banking and insurance companies. An offshore jurisdiction, for predominantly commodity-based economies of the developing countries in this subregion, brings with it very important spillovers, the most important of which is economic diversification.

The recent offshore phenomenon in the OECS sub-region must be viewed as an attempt to diversify the economies of the sub-region, especially in the services sector, to respond to, but not entirely circumvent or compensate for, the declining banana industry and agricultural sector, in general, that historically have been the mainstay of these islands' revenues.

In recent years, the sector has come under increased scrutiny, because of the growing perception that it: (a) encourages and facilitates money laundering; (b) distorts international markets by operating tax havens; and (c) does not encourage compliance by all taxpayers.

However, despite the potential threat of losing its competitive advantage in terms of tax rates and secrecy, the Caribbean offshore industry may still enjoy advantages by virtue of the following:

i. natural assets make the region a pleasant place to do business;

ii. the potential to raise government taxes and charges to the sector without a significant loss in business.

5. Macroeconomic Situation

All of the OECS countries except The British Virgin Islands are members of the Eastern Caribbean Currency Union (ECCU) and have maintained a fixed exchange rate since 1976 under a quasi currency board. The BVI uses the US dollar as its domestic currency. Thus, in none of the countries has there been an active exchange rate policy. Being part of a currency union, the ECCU countries practice a singe monetary policy, which has been largely benign. Hence, the major plank of macroeconomic policy has been fiscal policy. The performance of the fiscal sector is reviewed in the rest of this section[3].

The fiscal situation of the OECS countries has been generally weak. In 2000, current account balances ranged from a deficit of 4.5 per cent of GDP in St. Kitts and Nevis to a surplus of 6.5 per cent of GDP in St. Lucia. Overall deficits ranged from 1.3 per cent of GDP in St. Lucia to as high as 14.3 per cent of GDP in St. Kitts and Nevis. With declining flows of concessional financing and substantial outlays on investment expenditure, the high deficits have necessitated the increased use of domestic financing and lease/own arrangements, which in some cases have put some pressure on debt servicing costs. The use of domestic financing, however, has not generally had a "crowding out" effect since, except in Antigua and Barbuda and St. Lucia, commercial bank liquidity has been generally high.[4]

Available data on the public debt showed debt/GDP ratios ranging from 46.4 per cent in Grenada to 26.2 per cent in St. Lucia. Debt servicing cost was particularly high in Antigua and Barbuda - at 11.2 per cent of recurrent expenditure compared to 5.9 per cent in St. Lucia - notwithstanding the fact that debt service arrears in the former stood at 5.0 per cent of GDP at the end of 1998. Debt service costs were also high in St. Kitts at 10.6 per cent of recurrent expenditure while similar ratios for Grenada and Dominica stood at 8.5 per cent and St. Vincent and the Grenadines at 5.9 per cent. Grenada

also had debt service arrears equivalent to 2.0 per cent of GDP.[5]

All of the countries have made strong tax efforts to improve recurrent revenue to GDP ratios ranging from 29.5 per cent in Dominica to 18.2 per cent in Antigua and Barbuda. Tax buoyancy also showed varying results, with high ratios in St. Lucia at 1.2, Grenada, St. Kitts and Nevis and St. Vincent and the Grenadines at 1.0, Dominica at 0.9 and Antigua at 0.8, despite significant distortions in tax burden-sharing and substantial revenue leakage. An analysis of customs revenue shows that revenue forgone as a result of concessions granted range from as high as 60.0 per cent in Grenada to 30.0 per cent in St. Lucia.[6]

Recurrent expenditure during 2000 as a percent of GDP ranged from a high ratio of 33.1 in St. Kitts and Nevis to 19.6 in St. Lucia. At the same time ratios of capital expenditure to GDP ranged from 12.9 in the case of Grenada to 2.7 in the case of Antigua. The combined effect of these ratios against revenue to GDP ratios shows central government borrowing requirements of 15.6 per cent of GDP in the case of St. Kitts and Nevis and 1.5 per cent in the case of St. Lucia. Grant funding for these countries was 0.8 and 0.2 per cent of GDP respectively. The ratios obtained for the other countries were 1.1 per cent for St. Vincent and The Grenadines, 0.2 per cent for Antigua and Barbuda, 2.9 per cent for Grenada and 3.5 per cent in the case of Dominica.[7]

The efficiency of the tax system is affected by the distortions in relative burden sharing between sectors and even within sectors. In Dominica, tax incidence on the various sectors of the economy varied widely as far as income tax was concerned. Agriculture was virtually tax free while commerce bore a high burden of 21.9 per cent of the sector's share of GDP, with utilities at 14.1 per cent, government (PAYE only) at 9.9 per cent, banking and insurance at 8.8 per cent, manufacturing at 4.6 per cent and construction at 1.1 per cent. Such distortions affect allocative efficiency and tend to drive investment in areas where economic rents in the form of tax incentives to preferred sectors are more readily available. The appropriateness of this approach to investment stimulation becomes questionable in a situation where diversification and broadening of economic activity has featured so prominently in the strategies recently espoused by all administrations, especially with regard to non-traditional activities, particularly in the services sector. This situation is not confined to direct taxes only; but is evidently even more pervasive in the administration of customs revenue where substantial concessions are granted on an ad hoc basis. In addition to the direct revenue loss attributable to these formal and informal incentives/concessions, lack of transparency in incentives policy as well as lack of accountability on the part of recipients of incentives tends to undermine the authority and morale of tax administrators. This leads to increasing difficulty in enforcing compliance.

A review of the incentives framework (as part of a comprehensive tax reform), and its revenue growth possibilities is urgently needed in the OECS. This becomes even more important as the new emphasis on economic diversification and the development of the services sector, which will give greater priority to human resource development, can only increase the demands on government finances. Many of the Government departments are under-provided with support goods and services. The poverty alleviation and

reduction activities needed as part of the economic development thrust can only increase even further the challenges for efficient resource use and allocation.

6. Capital Formation and Growth

The OECS countries recognise the importance of securing one critical economic fundamental; that is, maintaining and improving the climate for both foreign and local investment. However, since 1990, gross capital formation accumulation has occurred at highly variable rates, and the greater the dependence on agriculture and primary activity generally, the more vulnerable and unstable the investment path. In Dominica, for example, because agriculture is as much as 20 % of the GDP, investment has a significant agriculture focus. The data [See Table 1.3 Appendix II] show that the path of capital formation is correspondingly unstable. For example, in 1992 and 1993 the annual rate of accumulation declined to –1 % and –5 % respectively. It increased to 8 % and 25 % in 1994 and 1995 respectively but then fell to –3 % in 1996. The Dominican growth rate increased to 14 % in 1997 and then fell off sharply to -9 % in 1998 but rose to 16% in 2000. The experiences of Grenada also feature substantial volatility, but with considerably more positive growth in the recent years, as international demand for spices switched to Grenada in the light of social and political crisis in the competing regions of South East Asia. By sharp contrast, after two years of decline in 1992 and 1993, Antigua and Barbuda has experienced steady growth in excess of 12 % per annum in all years except 1997 and 2000. The relatively lower degree of instability might be due to its growing emphasis on the service sector in which it has an inherently greater capacity and tendency to combine its natural resources with its local intellectual property to develop marketable products that can stimulate increasing investment. The other cases, such as St. Lucia and St. Vincent and The Grenadines, seem to fall between these extremes.[8]

In recent years, international capital flows grew almost exponentially, and all groups of developing countries, with the exception of Africa, have experienced an increase in capital flows [See Tables1.4 (a - c) – Appendix II]. These flows have been greatest in Latin America and Asia. In Asia and the Western Hemisphere (including Latin America and the Caribbean) the capital and financial account improvement started in 1989, but the surge in capital flows began in earnest in 1991. Capital flows reached a local maximum at about US$66.8 billion in the Western Hemisphere in 1993. In 1994, there was a market correction in Latin America, which slowed capital flows, and all emerging capital markets were adversely affected by the Mexican crisis as a number of investors became less bullish on emerging capital markets. Capital flows declined to US$49.4b in 1994 and then rose to a peak of US$85.9b in 1997 and they declined again to US$54b in 1997. In Asia, capital flows peaked at US$104.9b in 1995 and slowed to US$104.1 in 1996. Thereafter, there was a rapid reversal of capital flows associated with the South East Asia financial crisis in 1997. Capital flows fell to US$-42.6b in 1998 and recovered to US$2.6b in 2000. By way of comparison, in Africa, capital flows increased spasmodically from -US$-4b in 1992 to US$8.6b in 2000.[9]

The composition of the recent capital inflows has changed radically from inflows during the 1970's when capital inflows were dominated by commercial bank

lending. Commercial bank lending is now relatively unimportant while most of the current inflows are in the form of private sector direct investment and portfolio flows: foreign direct investment has risen steadily from US$35.4b in 1992 to US$146b in 2000. Portfolio investment on the other hand has been quite volatile, reflecting the instability in the international financial markets consequent on the South East Asian crisis. [10]

The decomposition of flows between long-term and short-term capital flows is rather imprecise but it can be noted that long-term inflows accounted for a much larger portion of the inflows than short-term movements. However, this is no indication of the speed with which capital flows can be reversed as highly liquid portfolio investment is usually classified as long-term.

Turning to the situation in the OECS countries, partly because the capital markets in the OECS countries remain largely undeveloped, the region, although affected by the liberalisation of international capital flows, was nonetheless spared the worst effects of the volatility of those capital flows. That is, the nature of their capital markets precluded them from sharing in the bonanza of portfolio capital flows, but by the same token the region was also spared the negative effects of the reversal of these capital movements. An important question must nevertheless be: can small developing countries afford to be excluded from what has become one of the essential ways of financing economic development; or should they find ways of living with volatility and benefiting from the positive effects while mitigating the adverse impacts ?

FDI inflows to the Eastern Currency Union [ECCU] region were estimated to have increased from EC$183.8m in 1986 to EC$846.7m in 2000, and as a share of GDP rose from 6.5 per cent to 11.0 per cent in 2000. During the period under consideration, however, FDI inflows to the region fluctuated, and are basically lumpy as they are usually linked with project cycles. Between 1986-90, FDI flows more than tripled to reach EC$565.4m. In some countries, such as Anguilla, which specialise in up scale tourism, FDI accounted for as much as 13.6 per cent of GDP in 2000. However, inflows to the region contracted by an estimated 11.4 per cent in 2000. The largest concentration of FDI in the region during the period appeared to be in hotel development, reflecting, to some extent, the impact of governments' policies towards the development of the tourism industry to support the agricultural and manufacturing sectors. [11]

The OECS sub-region as a whole accounted for the majority of flows into the Caribbean in 1986 (100 per cent) as there was significant dis-investment in Trinidad and Tobago, Surinam, and Jamaica that was associated with economic or political instability in those countries. In 1989, the ECCU accounted for the second highest share of flows into the Caribbean region averaging 62.5 per cent of total flows. Even so, by the end of 1995 this share had declined to 18.0 per cent. The decline in the foreign direct investment share of the ECCU was due to higher flows into Jamaica, Dominican Republic and Trinidad and Tobago arising from advances made by these countries in preparation for possible entry into the North American Free Trade Area (NAFTA). When compared with overall flows into Latin America and the Caribbean, the ECCB area accounted for 2.4 per cent of all FDI flows in 1986; by 1995 this had fall-

en to approximately 1.0 percent. This relative decline was explained by the faster rate of trade and capital account liberalisation in a number of emerging markets in Latin America.12 If this decline continues the OECS countries may well find themselves shut out of a valuable source of development finance, and the countries may need to take steps to improve the climate for both foreign and local investment. This would require attention to the legal and regulatory frameworks, in addition to the nature of the incentives regime.

7. Population and the Labour Force

7.1. Population and Migration

Although the demographic explosion of the 1970s and 1980s - brought on by excess of births over deaths – has come to an end in the OECS region, its legacy continues with far reaching implications for modifications in the composition of the population by age and other related areas, such as epidemiological profiles and dependency ratios, and the resultant impact on the structure of demand for basic social services, employment as well as other aspects such as household expenditure patterns, savings and investment consequences.

The total population of the OECS region grew from 517,115 in 1980 to around 574,160 in 2001. The percentage change was twice as large during the 1991- 2001 decade (7.1) in comparison to the 1980 – 1991 period (3.6). (see table 1.5.b.). These intercensal population changes reflect different mixes of natural increase (difference between birth and death rates) and migration rates.

Among the OECS countries, it seems that the striking pattern of regional differences in demographic conditions that started since the 1960s continues. Highly characteristic is the wide spread of population sizes, ranging in 2000 from 151,311 in St. Lucia, to approximately 4,500 for Montserrat, a more than 33 to 1 ratio.

There are wide divergences among the rates of population change also, which vary from a decrease of 57.7 percent in Montserrat (due to the large outflow as a result of the effects of the volcano eruption) to increases in the range of 24.0 percent in Anguilla, 17.9 per cent for the British Virgin Islands, and 16.3 percent for Antigua and Barbuda (which had registered a decline in the previous decade). The latter increases are largely the result of immigration. The population of the British Virgin Islands, which doubled during the 1980-1990 period, is showing signs of deceleration, however. Of special interest is the case of St Kitts and Nevis, which registered a positive growth for the first time in forty years (having experienced a substantial 20.2 % decrease in population between 1960 and 1990) and has now regained its original population size of 1970. By contrast, the population of St. Lucia, the most populous OECS country, grew by a slower rate (13.4) in comparison to 15.7 percent over the previous ten-year period. Dominica maintained a zero growth rate in contrast to the declines of the previous decade.

On average, it could be said that the OECS countries have reached the final stages of the demographic transition, demonstrating low fertility and mortality rates. Most of the countries now experience an average total fertility rate nearing replacement rate, in contrast to the rates that hovered around 3.0 children per woman in early 1990. There has been some variety, however, in the extent, timing, and pace of decline. Charts 1.4.a and 1.4.b illustrate the fact that, in St. Kitts,

Table 1.5.a
Selected population characteristics of OECS countries

Country	Population (2001)	Net Migration Rate 1990/91	Unemployment Rate (%, 1996)		Labour Force Participation rate (%, 1996)	
			Male	Female	Male	Female
Anguilla	11,561[a*]	n/a	6.3	9.0	82.0	60.7
Ant & Barbuda	70,737[a*]	4.8	6.4	5.6	81.6	62.9
BVI	19,000[a*]	20.7	3.4	3.1	84.3	68.6
Dominica	71,242[a*]	-9.8	9.8	9.2	75.2	38.9
Grenada	102,632[a*]	-19.3	14.6	12.7	67.8	38.2
Montserrat	4,500[b]	-6.0	n/a	n/a	n/a	n/a
St. Kitts–Nevis	45,884[a*]	-9.8	n/a	n/a	n/a	n/a
St. Lucia	151,143[a*]	-4.2	13.8	19.3	79.0	59.0
SVG	109,022[b]	-17.4	18.4	22.1	80.8	35.8

a*) Preliminary data from OECS Censuses (2001);
(b) Provisional counts from visitation records of census 2001 (c) Source: Mills, 1997; ILO, 2000

much of these fertility decreases have taken place among the older age groups. In contrast, it appears that St. Lucia has been much more successful in reducing the incidence of teenage fertility as reflected in the larger proportion of the fertility declines taking place in the under twenty-five group of women, thus signalling the continued positive trend of declines in teenage fertility for this country.

Although census data by age are unavailable for year 2001, population projections indicate continued declines in the proportion of children under 15, which averaged 45 per cent in 1991, as well as the continued sharp increase of persons in the middle years- the economically active population 15-64 which has tripled over the past three decades in some countries. Of equal significance is the marked rise in the elderly population over 65 which more than doubled since 1960 and is expected to reach a level representing about 15 percent of the total population within the next few years. This new demographic trend needs the urgent attention of OECS governments who will soon be facing ageing patterns requiring different social and economic adapta-

Table 1.5.b.
Population change in the OECS countries, 1980 to 2001

Country	1980	1991	2001			Intercensal change %	
	Total	Total	Male	Female	Total	1980-1991	1991-2001
Anguilla	n/a	9,290	5,705	5,856	11,561	n/a	24.4
Antigua & Barbuda	75,235	60,840	33,643	37,094	70,737	-19.1	16.3
BVI	10,985	16,115	n/a.	n/a	19,000	46.7	17.9
Dominica	73,795	71,183	36,081	35,161	71,242	-3.5	0.1
Grenada	89,088	95,597	50,481	52,151	102,632	7.3	7.4
Montserrat	11,606	10,634	n/a	n/a	4,500	-8.4	-57.7
St.Kitts-Nevis	43,309	40,618	22,806	23,078	45,884	-6.2	12.9
St. Lucia	115,252	133,308	74,805	76,338	15,1143	15.7	13.4
St. Vincent	97,845	107,598	55,456	53,566	109,022	9.9	1.3
Total OECS Region	517,115	535,893			574,160	3.6	7.1

Source: Population and Housing Census, National Statistical Offices. Note census 2001 data are preliminary

tions.

Given the low levels of fertility, it is expected that migration will continue to be the major factor contributing to the variations in population change in the OECS region. Two basic demographic scenarios exist. The first is reflected in those countries experiencing rapid growth from immigration (for example, Anguilla, Antigua and British Virgin Islands). These countries are distinguished by economies which are based primarily on tourism; possess per capita income levels that are among the highest in the region; and display a need for various proportions of foreign labour to sustain the growth of their economies. In this case, the cost of the impact of immigrants could be greatest on the social welfare of migrant-receiving societies in housing, public education and health services, including the possibility of disruptive social effects on the family and the growth of crime. The second migration regime consists of those countries with low growth or population stagnation resulting from continued heavy emigration (for example, St. Kitts and Dominica). Here issues of loss of skilled labour needed for driving national development initiatives and skill replacement training programmes would have to be addressed.

In addition, despite the signs of declines in net emigration over the past decade due to tighter restrictions in the receiving countries, new types of migration have emerged in the OECS region.

Chart 1.4.a.
St. Lucia age specific fertility rates, 1991 and 2001

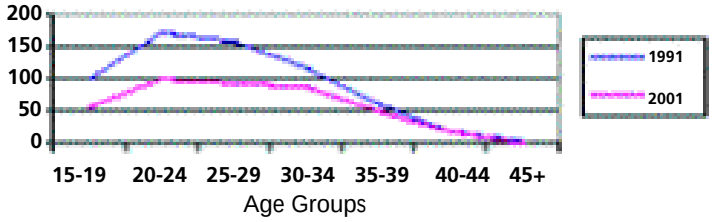


Chart 1.4.b.
St. Kitts & Nevis age specific fertility rates, 1991 and 2001

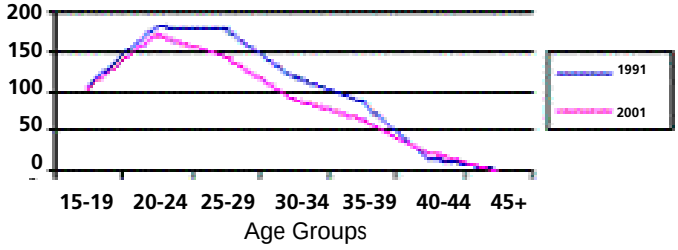
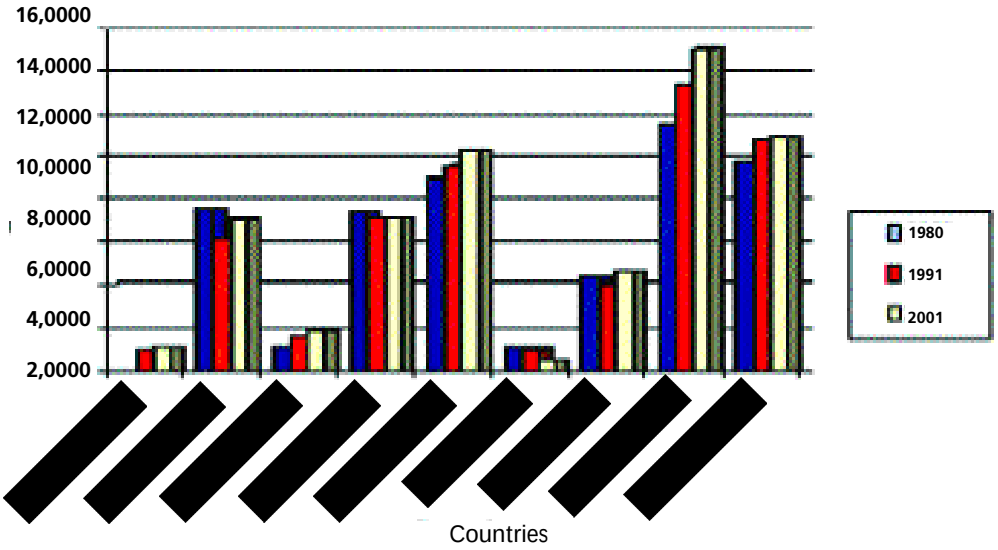


Chart 1.5
Population change in the OECS region 1980, 1991, 2001



Source: National Statistical Offices census data 1980, 1990, 2001

Of importance has been a rising tide of intra-Caribbean migration with a focus on the receiving countries of Anguilla, Antigua, and the British Virgin Islands. Another new pattern gaining increasing attention is the return migration of nationals. Added to this is the recent decision on free movement of labour through the newly established OECS Economic Union, which is expected to exert an influence on population size and composition dynamics in the short term. Since this is a process that would have to be accommodated by governments, strategies need to be developed for harnessing the skills and social and economic resources, which are associated with the absorption of new entrants into the OECS Member States.

7.2 Labour Force

As the OECS economies adjust to increased competition in international markets, much of the adjustment will fall on the labour market as the monetary arrangements force the adjustment on output and employment. High or rising levels of unemployment would aggravate the poverty situation to varying degrees in a number of countries. If labour markets are not flexible, adverse shocks could perpetuate an increase in the rate of unemployment, thus exacerbating poverty and threatening the social welfare and social stability of the country. Economic contraction and the retrenchment of workers can result in an increase in the unemployment rate, and when combined with the decline in the real value of social spending contributes to the deterioration in the poverty situation. The problem of unemployment is the major challenge facing the OECS countries at this time. Failure to solve it may result in further increases in crime and social unrest, which would be inimical to further development especially in the sensitive tourism sector.

The changes in the economy and its industrial sectors – including those induced by the increasing globalisation of the world economy and the structure of world output - are reflected in the changing character of the labour force. Agriculture remains the primary employer in the Windward Islands, employing 23 per cent of the labour force in 1996. However, the relative importance of agriculture has declined steadily since the 1970's, as the sector has become less attractive for new entrants to the labour market who generally aspire to white collar jobs, such as in the Sales and Clerical categories. But in addition to this, the continual restructuring in the major banana industry has resulted in numerous job losses in that sector. This has only been partially offset by the increase in jobs in the tourism and distribution sectors. Distribution is now the second largest employer. The manufacturing sector has never been able to absorb more than 8-10% of the employed labour force. The export processing zones - mainly focusing on textile manufacturing - once considered to be one of the primary vehicles for employment creation, particularly for unskilled and low skilled women have also not been able to meet the expectations. Increasing competition from more efficient manufacturers - both in the wider Caribbean and internationally - has resulted in the stagnation and decline in this activity over the past decade. [See also Table 1.5.- Appendix II]

7.3. Employment and Labour Force Participation

Achieving one of the principal goals of human development, *viz*: securing sustainable livelihoods requires the reduction

– and eventual eradication - of unemployment and poverty. Unemployment levels in the OECS region have traditionally been high. Various estimates of unemployment in the countries place the rates for individual countries at between 5 and 40 per cent. The latest St. Lucia unemployment survey estimates unemployment at between 17 and 22 per cent. There are major gender differences in the unemployment rates - with female unemployment being much higher than male unemployment for all age groups. For example, in 1996 Grenada had male unemployment of 14.6 % and female unemployment of 12.7 % in a context in which only 67.8 % of the eligible males and 38.2 % of the eligible females participated in the labour force. Similarly, for St. Vincent and the Grenadines the male unemployment rate was 18.4 % as compared with 22.1% for females.

In respect of the labour force participation rates, the gender differences are similarly striking. The data on unemployment and labour force participation are presented in Table 1.5. There, the persistently lower participation rates among females may be seen. The gap is especially wide in Grenada, St. Vincent and the Grenadines, and Dominica. Unemployment is highest amongst young first-time entrants to the labour force and is estimated at about twice the overall rate. As will be discussed later [See Chapter 3] the level of educational attainment and the age range suggest that unemployment is concentrated primarily amongst the unskilled and low-skilled persons in the labour force, and amongst those without secondary or any formal education.

Despite the high figures being reported, the measures are still a bit misleading[13], as they do not take into account quantity shifts in the labour market in response to high and rising unemployment. These quantity shifts may take the form of increasing employment in the informal sector; or, it may be that the difficulties of finding a job induce more females to stay at home; or, the long-term unemployed may simply drop out of the labour force. The latter two possibilities would have implications for lower participation rates. Finally, the crude information on the labour force does not take into account the extent of disguised unemployment, nor does it give an indication of the extent of underemployment.

7.4. The Informal Sector

Because of difficulties of both measurement and definition, labour force and living conditions surveys are normally limited to the examination of the formal sector only. The informal sector has nevertheless come to be a critical one – with estimates of the proportion of the persons employed in it being in the region of 35-40%. One reason for its growing importance is that it is likely to act as a cushion for high and rising levels of unemployment in the formal sector as efforts are made to mitigate the social and economic effects of joblessness. The informal sector expands as job prospects in the formal sector deteriorate and contracts when formal employment prospects improve.

This shift into the informal sector is however unlikely to be associated with any significant growth in economic well-being (at the individual or wider community levels) as the attrition rates are high and the income earning potential is more often than not very low. In fact, it may be that there is a fair amount of disguised unemployment

RESOURCE POVERTY AND SOCIO - ECONOMIC INEQUALITY EXIST AT UNACCEPTABLY HIGH LEVELS IN SEVERAL OECS COUNTRIES.

THE SOCIAL & ECONOMIC BENEFITS OF A LARGE INFORMAL SECTOR CAN NOT BE ILLUSORY ONLY

and underemployment in this sector.

Nevertheless, this sector has exhibited a great deal of initiative in spite of prevailing economic circumstances. But these selfemployed persons and small traders lack a proper organisational structure, and in many cases are therefore not capable of attracting necessary capital or gaining access to markets for their goods and services. In facilitating the private sector, the governments must look closely at strategies for 'formalising' the informal sector; in doing so, efforts need to be focused on those that can enhance the development potential of this sector.

7.5. Unemployment and Income Inadequacy Alleviation

Up until now, most of the Caribbean countries have more or less been able to tolerate the unemployment problem. Three of the more important reasons are as follows:

i. Some of the excess labour was able to emigrate to the industrialised countries in search of work. This also helps to explain the fact that while the census data for 1970 to 1990 for some countries showed relatively low population growth rates, these did not mesh with the natural rates of population increase during the period. The net migration loss in a number of OECS countries has been calculated to be in excess of 50% of their 1950 populations.

   The data show a significant net emigration rate [See Table 1.5] in most OECS countries. Indeed, in only Antigua and Barbuda (4.8 %) and the British Virgin Islands (20.7 %) is there a positive net immigration of population. Grenada (-19.3 %) and St Vincent and the Grenadines (-17.4 %) experienced high net rates of emigration of their populations. It will be seen also that the countries with the highest rates of unemployment also seem to have the highest rates of net emigration. Nevertheless, many of the emigrants are among the most highly skilled and educated persons in these societies. The recent tightening of immigration policies in some countries, especially the USA has impacted the level of migration from the Eastern Caribbean and has thus forced a decline in recent years. This can therefore be expected to exacerbate the unemployment situation.

ii. For a long time governments have sought to play an active role in employment creation, and employment in the public sector has in fact been desired for its security and stability. In several of the countries they have therefore been one of the principal employers of labour. In recent years, declining salaries (especially in relation to those in the private sector) have reduced the attractiveness of this option; but in addition, fiscal constraints and the need to operate a streamlined and efficient public service have restricted the Government's ability to play the role of employer of first and last resort. Indeed, there has been a great deal of pressure (especially from international lending agencies) on the governments to reduce the size of the public sector.

iii. Social welfare programmes in the region have had a fairly long history. They have ranged from poor relief and indigency alleviation to the more recent Social Investment Fund. In general, social safety net systems have been comprised of three elements, namely: social insurance, means-tested social or public assistance, and categorical transfers directed towards specific groups. More recently some activities

have focused on the provision of infrastructural development in poor communities, the provision of credit for micro-enterprise development and the promotion of income-generation projects. A recent review of the social welfare programmes in the region has described their limited impact on general social and economic well-being.

Taken altogether, it might be anticipated that high unemployment and underemployment levels, a burgeoning but subsistence-oriented informal sector, population instability, the drain of skilled persons, and the related excess of primarily unskilled labour could all present endogenous threats to the system. That is, they are likely to affect the pattern and pace of development as well as the resilience of the social and economic sectors. The Government's role as the facilitator of employment creation in the private sector is therefore likely to become critical. An examination of the relationship between growth and employment creation in the Caribbean, argued that it would require long term growth rates of about 4% to address the high levels of unemployment. One challenge facing governments would then be the level of dynamism of the private sector, and how responsive it would be to the public sector initiatives. Another set of challenges has to do with the inadequate work ethic, and the low levels of productivity that currently beset the societies in the region. It has been estimated that productivity increases in these economies over the last decade has been quite low ranging between 0.4% and 1.5%.

Although there are overwhelming moral and social considerations in paying a living wage, this must reflect the country's relative productivity levels vis-à-vis its trading partners and must also be in line with changes in productivity within the domestic economy as high wage demands could affect the competitive edge of firms. Stronger union bargaining power within certain sectors of the economy has sometimes resulted in a sectoral distortion of wages in the economy and, depending on the relative size of that sector, has a demonstration effect on the other sectors [Further discussion of these issues may be found in Chapter 3]. In the labour surplus economy model, increasing the real wage rate adds to the level of unemployment, since firms would be able to employ fewer workers at the higher wage rate.

Lowering the real wage via devaluation may boost employment temporarily as firms become more profitable. This will only be temporary, as wage rates will eventually rise to compensate for the increase in the cost of living. Maintaining competitiveness would require a continuous depreciation of the currency to maintain a lower real wage rate. This policy is untenable since it would lead to the further impoverishment of the vulnerable groups in the society. There is then a close nexus between, prices, wages, productivity and the exchange rate. In the long run, wage increases cannot exceed productivity gains adjusted for changes in export prices and the impact of import prices and the exchange rate on domestic prices.

POPULATION INSTABILITY, INCOME INADEQUACY, AND PURELY 'WELFARIST' SOCIAL PROGRAMMES CAN EASILY THREATEN THE DEVELOPMENT PROCESS.

8. Poverty and Social Well-being

The social situation in the OECS countries is discussed and analysed in greater depth in subsequent chapters. Here, a broad introductory overview will indicate some of the main features and challenges in the social sector. In Table 1.6 some general social indicators are provided.

8.1. Poverty levels

The upsurge in interest and attention to the poverty question that has taken place over the past five-to-eight years, has been due to the increasing recognition on the part of national policy-makers and interests, as well as international lending and donor agencies, that the poverty levels - and the attendant inequities - in these countries persist at unacceptably high levels. As reported in Chapter 3, Gini coefficients indicate a significant level of inequality in all OECS countries: the measures range from .44 in St. Kitts-Nevis to a high of .56 in St. Vincent and the Grenadines. Since in developed countries economies the coefficient typically ranges from 0.25-0.31, these may be considered unacceptably high.

Recent reviews of the poverty situation in the OECS region have shown that while -with the exception of St. Vincent and the Grenadines - the levels of Absolute and Food poverty[14] would appear to be relatively modest in most instances, the problem acquires fairly serious proportions once the levels of "resource poverty" (that is, access to housing, health, education, etc as measured by expenditures in these areas) are calculated. Thus, these more general poverty levels range from a low of 19 percent in St. Lucia to a high of 33 per cent in St. Vincent and the Grenadines [See Table 1.6]. More detailed analyses [See Chapter 6] have shown that the highest levels of poverty are to be found in the rural (and in particular, agricultural) sector, and that the low levels of human capital development may be closely linked with poverty status. Thus, although unemployment is expectedly linked with poverty, in many countries the working poor make up a significant proportion of those found below the poverty line – as individuals become trapped in elementary, low-skilled segments of the labour market. This underscores the importance of closely integrating economic development strategies with poverty reduction measures.

8.2. Housing, Water and Sanitation

Available data suggest that while there may be pockets of unsatisfactory facilities, the situation in respect of access to water and sanitation is fairly good. Only in Dominica is there a significant proportion (26%) of the population without access to any sanitation facilities. Anecdotal evidence as well as a more detailed breakdown of the available data[15] suggests

Table 1.6
Basic social indicators - OECS

Country	Poverty Rate (%)	Gross Enrolment Ratio	Infant Mort. Rate	Life Expect. at Birth
Anguilla	n/a	62	-	78.1
Antigua & Barbuda	n/a	69	14.5	73.9
B.V. Islands	n/a	92	9.5	76.0
Dominica	33	65	16.4	72.9
Grenada	32	65	19.2	65.3
Montserrat	n/a	79	7.8	76.4
St. Kitts & Nevis	31	70	27.8	70.0
St. Lucia	19	70	14.6	71.9
S.V.G.	33	58	22.2	69.6

See Chaps 4-6 for more detail, and sources of data

however, that these figures may mask a number of inadequacies on the ground. Further analysis is therefore required [See discussion in Chapter 6]. In this regard, issues related to quality and regularity of service, and types of facilities utilised would appear to be the most critical ones.

8.3. Health and Nutrition

In general, the post-war period has certainly seen significant improvements in the levels of health and social well-being. In general, it can be said notwithstanding the historical achievements in this sector, more recent developments have begun to suggest that they may be in danger of being arrested or even reversed [See also Chapter 5]. Recent reports have summarised the general health situation in the region as well as some of the emerging challenges:

- Non-communicable chronic diseases are now the leading causes of mortality and morbidity. Rates are high and rising;
- Communicable diseases continue to impose very heavy burdens, and in some cases, diseases once thought to have been conquered or under control (for example, tuberculosis) have begun to re-emerge or reverse the previously downward trend. At the present time, the almost exponential growth of HIV/AIDS and other sexually transmitted diseases has begun to present a major challenge for the health delivery system;
- The burden of violence, accidents and injury, is now such that there are good arguments for describing it as a major public health problem; and
- There are high and perhaps rising levels of inequalities in health status – where the poor are normally less healthy than the non-poor; and where the hospitalisation rates among the poor are disproportionately high.

9. Human Resource Development

As noted in the introductory chapter, the development of human resources has been identified as a critical prerequisite for the improvement of the competitiveness of the economies. In addition, it is also a social service to the society and one of the more effective avenues for the redistribution of wealth. Much has been achieved in the OECS countries to improve the quality and access to education during the last three decades. Nevertheless, a great deal remains to be done if these countries are to be able to efficiently meet the challenges in a modern global environment now characterised by rapid technological advances, and the correspondingly increased dependence on high levels of skills and knowledge. In particular, although most governments have endeavoured to maintain reasonable expenditure levels [See Chapter 4], the efficiency and effectiveness of the educational system (in terms of the quality and quantum of its outputs) need to be improved, and the investment in tertiary education still remains below what would be required to build competitive economies. Movement in this direction has started as most of the countries have been implementing the OECS Basic Education Reform Project which is aimed at improving the quality of teacher training, curriculum development, the construction of new schools and the refurbishing of new stock.

Available quantitative data would indicate relatively good levels of education in the region. Thus for example, the ratio for first, second and third level gross enrolment stands at 92% in the British Virgin Islands, 79% in Montserrat (2000), 70% in St. Lucia and St. Kitts-Nevis, and 69%

RESOURCE POVERTY AND SOCIO-ECONOMIC INEQUALITY EXIST AT UNACCEPTABLY HIGH LEVELS IN SEVERAL OECS COUNTRIES

GREATER DILIGENCE IS REQUIRED IF PAST ACHIEVEMENTS IN HUMAN RESOURCE DEVELOPMENT ARE NOT TO BE ERODED.

in Antigua-Barbuda [See also Chaps. 2 and 4]. Were the tertiary level - where enrolment is not usually more than 2% - *excluded*, then for the lower two levels, the rates would be considerably higher. Thus for example, in St Lucia, the gross enrolment rates at the primary and secondary levels (1999) were 110%[16] and 75%, respectively. In general, these figures compare favourably with the average (all three levels) of 64% in other Medium Human Development countries. The gap is then widest at the tertiary level: enrolment levels in the UK (37%) and the USA (81%) far outstrip the approximately 2% more normally found in the OECS sub-region. Here, it should be noted that the weighted average for middle and lower income countries is 20 - 22%.

It is however likely that gross enrolment figures in the Caribbean region overstate the actual levels and quality of educational achievement. One recent study of the relationships between poverty and education found that the type and quality of the educational institution attended had a greater impact on socio-economic mobility and the probability of not being poor than the level of education formally attained. In addition, if the experiences in the OECS region are similar to those in countries such as Jamaica, Trinidad and Tobago – then it will be important to tackle the gap between enrollment and actual attendance, and the even wider one between enrollment levels and actual performance at the major points of transition, namely: at the CXC Basic and General level examinations. In Trinidad and Tobago for example, although secondary school enrollment stood at 81%, of the population attending school, a minuscule 2.2% had full CXC certificates, and the pass rates (1995/96) for Mathematics and English were 34% and 36%, respectively. The data available for the OECS do indeed suggest that the situation may not be significantly dissimilar. The data available for the OECS performance in English (Grades I-III) is superior to that of the overall Caribbean average, as, with the exception of Grenada - all countries have proportions well in excess of 50%. With regard to Mathematics, although OECS performance levels are considerably lower, they are nonetheless above the Caribbean average. Thus for example, the OECS sub-regional average is 53% - with averages ranging from 27% in Grenada to a high of 75% in the British Virgin Islands. In this regard, the relatively good performance (that is, in comparison to the rest of the sub-region) in the British Virgin Islands, pre-volcanic Montserrat, and Anguilla should be noted. In general however, Mathematics remains a weak area, as the only countries in which more than 50% of the candidates obtained Grade 1 - 111 passes in this subject were Dominica, BVI, and St. Lucia. Later in this report, more detailed discussion of educational performance is provided [See Chapter 4]. In that discussion, the deficiencies of the educational system – especially those related to the high drop-out rates beyond the age of compulsory education – are more clearly outlined.

Unfortunately, most of the available data refer to formal schooling, and even here there is very little information on the numbers in technical and vocational education and training. But available information does suggest that access to this kind of training is limited. While the pass rates (CXC Basic level) tend to be high ranging from 40-80%, the numbers sitting the examinations in areas such as Electronics, Metals, and building technology do not account for more than 2% of total number of the subject entries at this level.

Further discussion of the limited range of the knowledge and expertise gained at this level may also be found in Chapter 4. In respect of in-service training and skill up-grading activities almost all the reports on human resource management comment on the fairly large number of them, but they also bemoan the virtual absence of any evaluations and assessments that would provide information on either their reach or actual impact. The general conclusion that must then be drawn from the information available is that the socio-economic system is at serious risk, in that the level of basic education is so low and restricted as to make sustained participation in the international competition for income problematic.

10. The Digital Divide

Although the gap between the OECS and most of the developed world is large for formal schooling, it is even larger for telecommunications and computer technology. Bridging this so-called "digital divide" holds the key to the future development of small developing economies, given the importance of knowledge based activities in the modern economy and the expectation that this trend would become more pronounced in the future. The use of the Internet is expected to be the single most important influence on development in the future not only for direct commerce, but also in the acquisition of knowledge and the diffusion of production structures across geographical space. This would allow small developing countries to link into production and distribution networks in such activities as computer assisted designs, sub-contracting of production and processes and the provision of support services.

The liberalisation of basic telecommunications under the General Agreement on Trade in Services (GATS) signed in 1997 has unleashed a wave of competitive pressures which has resulted in a spate of international mergers, as formerly protected national telecommunications companies scramble to position themselves to be players in the global market. At the same time, technological advances in the telecommunications industry is threatening to create a glut of bandwidth internationally that would force the price of telecommunications services to near zero levels. Not only does this effectively shake the foundation on which the regulatory frameworks for the telecommunications industries currently rest, but it also provides avenues for small firms and individ-

OECS COUNTRIES ARE IN REAL DANGER OF BEING ON THE WRONG SIDE OF THE GLOBAL DIGITAL DIVIDE.

Table: 1.7
Telecommunication services in households, Anguilla and St. Lucia, 2001

Type of Service	Country	
	Anguilla	St. Lucia
Internet Connection		
Yes	19.4	7.9
No	80.6	92.1
Total	100	100
Computer Ownership		
Yes	27.1	13.1
No	72.9	86.9
Total	100	100
Telephone Ownership		
Yes	82.3	60.2
No	17.7	39.8
Total	100	100
Cellular Ownership		
Yes	31.2	13.7
No	68.8	86.3
Total	100	100

Source: Population and Housing Census 2001 Preliminary Data National Statistical Offices of Anguilla and St. Lucia
Note: In the case of St. Lucia 'Not Stated' has been added to the 'No' category : Not stated : Internet connection (NS:10.5%); computer own (N/S: 2.3%); Tel. own (NS: 1.8%) ; cell own (NS:2.9)

OECS Information & Communication Technology Services

The OECS Secretariat has embarked on the Telecommunications Reform and Modernization Project to address the number of deficiencies that were identified in Information and Communication Technology (ICT) of the sub-region. To date, the efforts of that project have resulted in the formation of the Eastern Caribbean Telecommunications Authority (ECTEL). This regulatory body will offer the platform on which information services can now be erected. As an additional component, the project continues with work on the development of the ICT sector to take advantage of the spin-offs expected in the telecommunication industry.

All sectors in the OECS, both government and non-government organizations, are cognizant of the fact that there is need to harness the opportunities and advantages offered by Information & Communication Technology for economic and business development. A number of training initiatives is currently being undertaken in this regard. At the lower levels, the governments, through the formal school system or continuing education programs, are providing basic computer programmes. Private enterprise is filling the needs at even higher levels than that offered by governments. The work of the OECS Education Reform Project is addressing the training systems and needs in the formal systems, both government and non-governmental.

The design and preparation of a clear policy framework and direction with respect to the development and encouragement of Information & Communication Technology is now underway. In this approach the broad macroeconomic issues are being addressed in the formulation of a regional ICT Policy that emphasises the legal and regulatory environment, incentives regimes, strategies, measures, programmes and human resource development processes.

Policy issues are centred on Information & Communication Technology as an area of economic activity, and through its use, the promotion of increased efficiency and competitiveness of existing production and service enterprises.

uals to compete head to head with large companies.

The stark fact is that connectivity in the OECD countries is several times that of developing countries. For example, according to the HDR (1999) industrial countries with only 15% of the world's population had 88% of the Internet users; North America with less than 5% of the world population has 50% of the Internet users. Preliminary census 2001 data reveal that only 13.1 per cent of households in St. Lucia own a computer. In contrast, this proportion doubles for Anguilla (27.1). On the other hand, the percentage with internet connection ranges from 7.9 for St. Lucia to 19.4 for Anguilla. Similar patterns of differentials exist in the case of telephone ownership; approximately 40.0 percent of households in St. Lucia are without telephones in comparison to 18 percent in Anguilla. Ownership of cellular phones is also twice as high for households in Anguilla (31.2) than in St. Lucia (13.7) (see table 1.7.)

The United States has more computers than the rest of the world combined and the highest per capita level of computers. Even with telephones, which have been around for much longer, the picture is not much different. One quarter of the countries of the world has not achieved the basic tele-density benchmark of 1 telephone to every 100 persons. The situation is even worse when the distribution of telephones is taken into consideration. Most of the telephones are concentrated in urban areas while most of the population lives in rural communities.

Table 1.6, Appendix II provides information on the connectivity of some of the OECS countries. The table reveals that the countries lag very far behind industrial countries on most of the indicators of connectivity. However, the OECS countries

are ahead of most developing countries. For example, the tele-density of the OECS countries is much higher than the basic benchmark of 1, and Antigua and Barbuda has a number of Internet hosts per thousand (3.69), which is just outside the lower range for the OECD countries. A major challenge for developing countries nevertheless lies in the speed and quantum of the advances and developments in the telecommunications and information technologies. While these developments do open new opportunities, and can and have reduced the economic distances between countries as they facilitate global and production structures, the resources and intensive resource development (specifically human resource development) required to keep up with the fast innovating knowledge-based international economy could be daunting for any of the OECS countries. Certainly, some information technology capacity-building is underway in several of the OECS countries. However, there is a real danger that the Trade Related Intellectual Property Rights (TRIPS) agreement, which has tightened the rules, could effectively make it more difficult for developing countries to adapt to the new technologies. This would present additional obstacles in the way of knowledge-intensive development efforts.

The liberalisation of the Telecommunications sector in the OECS region has become comparatively more important in view of the uncertain nature of markets for agricultural export commodities that have traditionally been major contributors to most Caribbean economies. Caribbean Governments are opening the telecommunications sector to competition in order to lower service costs and to secure state-of-the art-networks that would facilitate the development of the other economic sectors. The move to liberalisation has led to the need for a regulatory body to manage the transformation in the sector. The Eastern CaribbeanTelecommunications Authority, ECTEL, which is the regional telecommunications regulatory authority, came into effect on May 7th, 2000.

The design and preparation of a clear policy framework and direction with respect to the development and encouragement of Information & Communication Technology is also now underway.

11. Gender Inequalities

The deficiencies, and problems already discussed in the areas of health, education, poverty, housing, and welfare, may usually be taken to imply the existence of significant social and economic inequalities in these countries. In many societies, it has been found that to these may be added gender and ethnic inequalities - where these latter two factors *indepen - dently* impose iniquitous differentials on the conditions of social existence. Gender inequality– or more importantly – gender inequities can easily undermine the extent and pace of development as it implies a significant under, or mis-utilisation of resources.

Recognising that gender disparity was one of the most persistent of the rising disparities within and between nations, the 1995 Human Development Report focused on gender and development. It drew attention to the fact that 70.0 per cent of the world's poor were women, and that two-thirds of the world's illiterate were also women. It was further noted that only small numbers of women were in managerial and administrative occupations, parliamentary seats and cabinet positions. In general, they were at great risk of the threat of violence from

cont'd on pg. 41

Eastern Caribbean Telecommunications Authority (ECTEL)
Telecommunications Liberalisation in the OECS

The liberalization of the Telecommunications sector has become comparatively more important in view of the uncertain nature of markets for agricultural export commodities that have traditionally been major contributors to most Caribbean economies. Caribbean Governments are opening the telecommunications sector to competition in order to secure state-of-the art-networks at reasonable costs that would facilitate the development of the other economic sectors.

The Telecommunications Industry is undergoing some phenomenal changes at a rather rapid rate. Business professionals need to understand what is happening and how these changes will affect their companies.

Competition among local, long distance cable, wireless and video media will increase dramatically as a result of the liberalisation of the sector. The industry will continue to shift to digital systems. Bandwidth demand will accelerate; mobile communications will continue to expand exponentially. The demand for radio frequency knowledge and engineering will increase due to expanded use of wireless, cable and microwave technologies.

To take full advantages of the changes in telecommunication technology, it became necessary for the OECS to make some fundamental alterations to the telecommunications environment. A telecommunications policy was developed, which recognized telecommunications as, a catalyst for promoting efficiency and growth. New Telecommunications Acts have been enacted in all participating Member States namely: Dominica, Grenada, St Kitts and Nevis, St Lucia and St Vincent and the Grenadines. In addition the Governments have reached agreement with Cable and Wireless to terminate its Licenses for the exclusive provision of services and to introduce competition in all services by April 2002.

The move to liberalisation has led to the need for a regulatory body to manage the transformation in the sector. The Eastern Caribbean Telecommunications Authority, ECTEL, which is the regional telecommunications regulatory authority, came into effect on May 7th, 2000.

ECTEL is charged with the responsibility of assessing/ evaluating licence applications and making appropriate recommendations to the national regulatory commissions and the administration of spectrum and number allocations on a region-wide basis. In that regard it is also responsible for ensuring that all proposed national licenses meet regionally consistent terms and conditions and that rates and tariffs are harmonized in a manner that results in the OECS being treated as one telecommunication space.

The participating Member States have all established independent Telecommunications Regulatory Commissions. Matters such as issuance of operator licenses, rate setting and tariffication, terms and pricing of interconnection, granting of landing rights, conditions on the use of public rights-of-ways and consumer complaints resolution will be the purview of the National Telecommunications Regulatory Commissions (NTRC's).

Draft key Regulations on such matters such as Interconnection, Tariffications, Numbering, Licencing, Spectrum Management and Universal Service obligations have now all been completed and submitted to the states for finalization.

The OECS have laid the necessary groundwork and developed the new architecture of the telecommunications sector. The challenge is now for the OECS to attract the kind of investment (either local, foreign or both), which would be beneficial in a liberalized telecommunications environment in the OECS.

birth to death. The central message of the Report was that enlarging people's choices, widening opportunities, and improving economic well-being therefore meant that it was therefore important to include women in the development process.

In the OECS and wider Caribbean countries, while there are significant gender inequalities and inequities, there are nonetheless a number of important differences, which need to be recognised and understood if iniquitous and development-sapping gender differences are to be eliminated. In earlier sections it was already noted that females are more likely to be unemployed, and have lower labour force participation rates. Also, although they have enjoyed very significant rates of socio-economic mobility, and at the present time many are to be found in the highest occupational categories, there continues to be a fair amount of occupational segregation - with females being concentrated in specific sectors (for example teaching, the civil service, and the distributive trades), but most of which do not have high levels of remuneration.

Specific studies as well as available aggregate data do however show that the situation is in fact a very complex one. Gender socialisation patterns are not often easily reconciled with actual behaviours on the ground[17]; the legal and constitutional rights of females are reasonably well–established, even while domestic violence would appear to be quite widespread; and economic differences in terms of occupational opportunity and distribution as well as poverty and consumption levels are neither consistent nor necessarily gender-biased.

In other words, while it is clear that there are significant gender differentials, these are not necessarily against women or in one direction only. It would therefore seem important to examine the character and extent of the gender differentials in order to determine the kinds of conflicts – at household and community levels – that may in fact be spawned or generated by the peculiarities of the Caribbean situation. It might be expected for example that patriarchal ideologies or values co-existing with social and economic structures that do not effectively support those ideas could be a source of development-sapping conflicts. The character of the gender differential could also call for specific types of social policy targeting hitherto unanticipated. This particular issue is discussed in greater detail in Chapter 5.

THE COMPLEXITY AND PECULIARITIES OF THE GENDER RELATIONS IN THE OECS NEED TO BE BETTER UNDERSTOOD, IF THEIR POTENTIAL BURDEN ON THE DEVELOPMENT EFFORT IS TO BE LIFTED.

12 Environmental Management and Sustainable Development

Ecological fragility, close interdependence of economy and environment and a vulnerability to natural hazards mean that the OECS Member States must be vigilant in maintaining their natural resource base. The interdependence of economy and ecology is evident throughout the sub-region. National economies are all heavily dependent on tourism, export agriculture, fisheries, etc. All these activities involve the direct exploitation of natural resources such as coastal environments, marine environments, land and water. Further degradation of these resources would greatly influence the countries' prospects for social and economic growth and development.

The small size of the Eastern Caribbean islands and their related ecosystems create substantial risks for local habitats and the species they feed and shelter. The biological resources are under great pres-

St. George's Declaration of Principles for Environment Sustainability in the OECS reflects recognition on the part of OECS Governments,"…that environmentally sustainable development is essential for the creation of jobs, a stable society, a healthy economy and the natural systems on which this depends. Further, the Declaration reaffirms the belief of the governments and people of the OECS Sub-region that everyone is entitled to a healthy and productive life in harmony with nature and commits the Governments to provide the resources required for implementation.

sure from developmental activities and such other additional factors as:

- Steep slopes and rapid changes in topography, which in turn creates small, scattered ecosystems
- Small size of the ecosystems
- The concentration of populations and activities in small areas
- High frequency of disasters
- The close coupling of ecosystems within a single watershed resulting in fast spreading of effects among the systems

The environment in the sub-region continues to come under stress from competition by economic interests for a limited land resource base; infrastructural development (especially for tourism); inadequate waste disposal; increased use of cars, and increased frequency of natural disasters. The OECS States are vulnerable to natural and environmental disasters and have inadequate capacities to respond and recover. All the islands are at risk from sea-level rise. In addition, the islands are susceptible to inappropriate conversion of steep slope forests for agriculture and housing with consequent soil erosion, landslides, damage to infrastructure, flooding of coastal areas, sedimentation of coral reefs and general degradation of fragile coastal environmental resources.

The interdependence of economy and ecology is evident throughout the OECS sub-region. National economies in the sub-region are all heavily dependent on tourism, export agriculture and fisheries. All these activities involve the direct exploitation of natural resources such as coastal and marine environments, land and water. Further degradation of these resources would greatly influence the countries' prospects for social and economic growth and development.

The ecological fragility, the close interdependence of economy and environment and a vulnerability to natural disasters means that the OECS Small Island Developing States must be vigilant in maintaining their natural resource base. Located in the hurricane path, and set on a volcanic fault-line, the possibility of the infrastructure of one or more of these islands being wiped out by hurricanes or volcanic eruptions is a perennial concern.

Given these challenges and the recognition of the intricate interrelationships among environmental resources, economic endeavours and social practices, the OECS Member states are taking strategic actions to reduce their vulnerabilities and manage their environmental assets. To this end, they have formulated and adopted the St George's Declaration of Principles for Environmental Sustainability in the OECS. The commitments contained in the Declaration "proclaim the principles of sustainable development by which human conduct affecting the environment is to be guided and judged". The OECS Environmental Management Strategy is the framework through which the Declaration will be implemented. This Strategy is further discussed in Chapter 6.

The St. George's Declaration of Principles for Environmental Sustainability n the OECS is a commitment by Member

States to actions necessary to achieve sustainable development goals in ways that ensure that environmental quality is maintained or improved. It therefore represents the mechanism through which OECS countries will attempt to meet the objectives of AGENDA 21 and the Small Island Developing States Plan of Action (SIDS POA) while remaining cognisant of the ever changing development landscape and the constraints to sustainable development facing the sub-region. The objectives of the Declaration are to:

- Foster improvements in the quality of life;
- Integrate socio-economic and environmental considerations into national development plans and programmes;
- Improve legal and institutional frameworks for environmental management;
- Enhance civil society participation in decision making;
- Ensure participation by the private sector;
- Use economic instruments in environmental management; and
- Undertake broad based environmental education, training and awareness.

The main issues and challenges are discussed in more detail in Chapter 6. At this point it is sufficient to note that given the environmental and economic need to maintain the bio-diversity, the critical and most pressing issues will be to improve watershed management, coastal zone management, marine resource management, solid waste management, liquid waste management, water resources and forestry resources.

13. Governance in the OECS

Political governance refers to the decision-making processes and their linkages to policy formulation. In this regard this section examines the voter participation, the level of power and authority which politicians exert and the level of consultation and participation in decision-making as indicators of political governance. During the last three decades all six member countries of the OECS have attained their constitutional independence, all have established a parliamentary democracy and the constitutions allow for a multi-party political system.

In the post-independence period, all of these countries have enjoyed a strong track record of democracy, and demonstrating a commitment to the democratic process through a respect for political and civil liberties and the holding of free and fair elections. With the exception of Grenada in 1979, elections have been called within the constitutional timeframe and governments have entered and exited as determined by the outcome of the polls. Whilst there have been sporadic allegations of irregular practices in the conduct of some elections, these for the most part have been resolved by the judicial system, which albeit slow, remains relatively free from direct political interference. Several reports produced by international institutions and governments have identified the region as one where democracy and political freedom prevails. This was especially so during the seventies, when different political ideologies that were reflective of the cold war period coloured the political landscape in Latin America and the Caribbean. Data in Box 2.1 indicate that most countries in the region have ranked high in terms of political freedom. This score was developed by the US State Department and includes factors such as the right to vote and freedom of the press. The people of the region therefore have made signifi-

Box 1.2
Political Freedom Composite Score for Various Caribbean Countries

Country	1990	1997
Anguilla	...	...
Antigua & Barbuda	5	7
Dominica	3	2
Grenada	4	3
Montserrat	...	...
St Kitts & Nevis	2	3
St Lucia	3	3
S.V.G.	3	3
Barbados	2	2
Jamaica	4	5
Trinidad & Tobago	2	3
Guyana	9	4

Source: LAC Databook 1998, US State Dept 1998 report.

cant progress in the area of political governance, and it would appear that in general, the rule of law is maintained.

There are however a number of developments and events that would suggest there is a need to carefully examine the political health and development of these countries. First, there is the question of representation and participation. Voter participation can be used as an indicator of the populations' satisfaction with governance issues. The data in Table 1.7 [Appendix II] show that there is a relatively low level of voter turnout in elections across the region. Further, by this measure, voter participation has in fact been declining in almost all countries, and especially in St. Lucia and Grenada.

Another problem area has to do with representation at the parliamentary level of the various interest groups. Many complain that they have not been able to articulate their views at the crucial decision-making and/or implementation moments. While there have been no systematic studies on the subject, there have nevertheless been frequent allegations of corruption at all levels of the parliamentary and civil service sectors. In fact, in most of the islands an effective and transparent system has not been developed to feed the important issues for various interest groups into the budgetary process and other decision-making processes.

Finally, the long-standing role of the government sector as a principal employer or employer of last resort can and does encourage authoritarian behaviours, and restricts the freedom of expression and opinion. In recent years a great deal of pressure has been applied to the region's governments to reduce the levels of the direct involvement in the economy, as well as their role as employer. Budgetary difficulties as well as international lending and donor agencies have been the main sources of these pressures. Movement by the government on these fronts has been limited and hesitant; this could be explained by the reluctance to give up any leverage gained from these roles and activities, and also the recognition that alternative employment opportunities remain limited.

14. Personal Security and Social Stability

One of the most fundamental rights is the freedom from fear – with no threats to personal security: "no other aspect of human security is so vital as security from physical violence". In addition, it is perhaps by now a truism that economic development and growth are more likely where there is a reasonable amount of social stability and order. Where there are persistent threats to lives and property, the social and economic investments, and the population stability necessary for

progress are not likely to be at the desirable or optimal levels. In several countries however, people's lives and property continue to be threatened by violence and assault. In the OECS countries this is a very real and - from general accounts – increasing problem. The UNDP Human Development Report 2000 provides data for only one OECS country, namely St. Vincent where – in 1994- the total recorded crimes per 100,000 people is the 6th highest rate of all those reported. The data available from specific country institutions are patchy at best; this is an area in which the collection of comparative data and information is vitally necessary. The most critical problem areas would appear to be burglary and armed robbery, homicide and domestic violence [See discussion on Chapter 6]. In this must be included narcotics trafficking and its associated criminal activities.

15. Conclusion

The adjustment/transformation of the OECS economies to face the changes in the new global economy will be challenging. Some of the difficulties are reflected in the fact the growth rates of the OECS economies have fallen well short of the average of 6 per cent experienced during the latter half of the 1980's. All of the traditional export sectors have experienced lack-lustre performance in the 1990s, especially traditional commodity exports and manufacturing. Communications and financial services have been the fastest growing sectors and have served to prop up the weak growth performance. The poor performance of the export sector has resulted in increased unemployment and greater hardships for vulnerable groups in the society. The manufacturing sector faces some major challenges since it produces under a variety of protective arrangements. The phasing out of these arrangements would therefore spell disaster for this sector as it is currently constituted.

Development strategies at national and regional levels in the OECS region provide a vision and identify strategic responses to the current crisis. Some areas of agriculture and agro-processing sectors have been identified as important for export growth, but a great deal of emphasis is being placed on the efforts to develop knowledge-based economies and a competitive service sector. There would appear to be at least three very important challenges. First, there is the challenge of the fiscal implications of adapting to the liberalised global environment. As a result of the heavy dependence on import duties the revenue adjustment could be quite significant. This revenue adjustment comes at a time when the countries would be called upon to increase spending to improve the social and economic conditions and broaden the choices of the members of the society. The second challenge is one of securing the levels of human development necessary to achieve both social well-being and economic growth. Issues of human resource capacity will affect the timeliness and efficiency with which Member States can develop and implement the necessary arrangements and mechanisms that would support closer regional integration.

The third challenge is the ongoing challenge of regional cooperation. While Member States have made some progress, for example the successful monetary union, there is still a number of elements that must be addressed. The Member States' recent decision to establish an OECS economic union and to facilitate freer movement of nationals

SAFE PHYSICAL AND SOCIAL ENVIRONMENTS ARE NECESSARY PREREQUISITES FOR ECONOMIC ADVANCE

within the sub-region represents an additional step towards closer cooperation. However, there is a number of other challenges that would affect the success of the countries in these areas.

One important other challenge has to do with the identification and mobilisation of the resources needed to ensure the creation of an OECS economic union and to finance the arrangements for the freer movement of OECS nationals. Another challenge will be the need to make changes to their own immigration arrangements and to also provide training to immigration officials to ensure the implementation and operationalisation of mechanisms for easier entry of OECS nationals. Finally, the formulation of an economic union will require the restructuring and strengthening of national public administrations, streamlining customs administration and practices, and the harmonisation of taxation and other fiscal policies. Work in these areas would require significant inputs of human and financial resources.

While the challenges will place a greater burden on Member States' limited resources, they are by no means insurmountable. As long as the OECS political directorate maintains strong support for the initiatives and is successful in obtaining the endorsement of the respective national publics, the OECS region will succeed in fostering closer regional integration. In all of these endeavours, however, the political will will be of paramount importance to achieve positive benefits for the people of the region.

Endnotes

1 The following areas would have to be developed as part of the niche market of nature tourism or Eco-tourism: Special spa facilities; fitness centres; health resorts; mountain resorts; sanatoriums and herbal and diet centres. The capacity of the health sector would have to be enhanced to provide emergency and chronic care, as well as efficient land and air ambulance services.

2 First tier offshore jurisdictions – for the purposes of this article - comprise Bahamas, Bermuda, British Virgin Islands (BVI) and Cayman Islands. Second tier jurisdictions make reference to offshore centres in the OECS sub-region (BVI excluded).

3 The fiscal data exclude Montserrat because of its special circumstances. Its revenue is supplemented through grant funding. In 2000, the current account deficit was 24.5% of GDP and the overall balance was a surplus of 4.0% of GDP.

4 Source of data – ECCB

5 Debt data remain as they are because of unavailability of domestic debt for member countries

6 Source of data – ECCB

7 Same as in footnote 4

8 See Table 1.3

9 See table 1.4a

10 See table 1.4a

11 See table 1.4b

12 Mexico, Brazil, Argentina, Colombia and Chile accounted for 78.5% of all FDI flows into Latin America and the Caribbean in 1995.

13 It should also be noted that there are variations in the calculations and presentations of the unemployment data in the different countries so that comparisons between countries may not always be meaningful.

14 These figures refer only to those countries for which the more detailed calculations were available.

15 Unfortunately the data are also very dated. Adequate social analysis and planning really require data beyond 1991.

16 Gross enrolment figures may be greater than 100% because they include under and over-aged children.

17 The co-existence of patriarchal values and ideologies with the large proportion of female-headed households is only one example of the fair amount of female autonomy that does exist.

CHAPTER TWO

The measurement of human development in the OECS region

1. The Human Development Index

The Human Development Index [HDI] that was developed to portray the status in each country was – at the time - deemed revolutionary, as it sought to move the measurement beyond GDP per capita and other purely economic measures. It was also welcomed as an attempt to measure the performance of countries with respect to sustainable human development. The HDI has three (3) sub-indices each of which measures the historical achievement at the end of the period considered.

Each sub-index (that is, of educational attainment, life-expectancy and disposable income) is given equal weight. The variables used for each index are as follows:

a) Longevity

Since the length of life is treated as a basic dimension, without reference to quality, it is usually measured as life expectancy at birth, a measure which is seen as the cumulative result of all past efforts to expand.

b) Knowledge

The basic dimension of knowledge is usually measured as a weighted combination of the adult literacy rate, and a simple average of the enrolment ratios in primary, secondary, and tertiary institutions. The standards are similar for school enrolment at each level.

c) The Standard of Living

Set in the traditional calculus of pleasure and pain, the adjustment of individual income seeks to discount high income so as to capture the true enjoyment (well-being) that it brings: "people do not need an infinite income for a decent standard of living". In making adjustments, the normal practice has been to employ the hypothesis of consumption smoothing, that is to say, the hypothesis of diminishing marginal utility, as the basis for the discounting. This interpretation is consistent with the traditional index of development – that is, the growth of per capita GNP at constant prices, or per capita real income - adjusted by an index which, for each relevant social group, appropriately weighs the rise in real utility that will accrue to different income groups from this growth in real income. The point beyond which diminishing marginal utility sets in is the "average global real GDP per capita in PPP dollars." In other words, this level of income is regarded as "adequate for a reasonable standard of living".

Box 2.1
Human Development Indices: Some continuing constraints

- **Lack of comparability makes tracking of progress over time difficult;**
- **Arbitrariness of variable selection with possible consequences for 'correctness' and/or representativeness of variables selected;**
- **Too much emphasis on global measures with consequent inattention to important within-country variations and distributional patterns;**
- **Methodological flaws – especially in respect of the weighting procedures utilised;**
- **The continuing challenges of successfully selecting and measuring outcome versus process, and of accurately measuring quality versus simple quantity.**

Given the clear need and demand for this tool and the associated data by those engaged in the policy-formulation processes, it is vital that they be made as useful and meaningful as possible for the users.

Since their introduction, many questions have been raised about the real accuracy and usefulness (at country-level) of the various indices. These have ranged from the choice of indicators, to the weighting structures applied and the interpretation of the results for the various countries. (See Box 2.1 for a summary). Many of the difficulties and deficiencies have been recognised by the UNDP, and they correctly point out that it is possible to "capture only what is measurable". Beyond these methodological issues however, are those related to circumstances deemed to be peculiar to

Table 2.1.1.
Components and indices of the Human Development Index, 1999 to 2000[a]

OECS Country	Life Expectancy at Birth	Adult Literacy Rate[b]	Gross Enrolm't Ratio (%)	Life Expect'y Index	Education Index
Anguilla	78.1	75.4**	62	0.885	0.709
Ant-Barb	73.9	86.6*	69	0.815	0.807
BVI	76.0	95.7*	92	0.850	0.945
Dominica	72.9	96.4*	65	0.798	0.859
Grenada	65.3	94.4*	65	0.672	0.846
Montserrat	76.4	94.2***	44	0.857	0.775
St. Kitts-Nevis	70.0	97.8*	70	0.750	0.885
St. Lucia	71.9	90.2*	70	0.782	0.835
S.V.G	69.6	88.9*	58	0.743	0.786

a) These figures have been calculated - using actual enrollment at primary, secondary and tertiary levels, and mid-year population projections or population estimates (based on preliminary counts from the most recent Census exercises) provided by the governments. Individual OECS countries provided Life Expectancy at birth. The calculation of all the indices utilises the same formula used by the UNDP: further detail is provided in the Technical Note – Appendix 1.
b) The absence of a commonly accepted standard within the region for indicating Adult Literacy affects the Literacy rates provided by the different countries [Miller 2000]. In this Report, at least 7 years of primary level schooling has been used to indicate literacy level. For further discussion see the Technical Note, Appendix 1, and Chapter 4.

Source: Data supplied by National Statistical Offices; Ministries of Health; Ministry of Education (Antigua-Barbuda); Ministries of Planning; OECS Secretariat. All rates and Indices have been calculated using mid-year (2000) population estimates. In all those cases the specific country Statistical Offices utilized the provisional 2001 Census figures to assist the calculation of the mid-year population figures. The exception was St. Kitts-Nevis, so that the figure presented here has not been influenced by the recently conducted 2001 Census. Years * 1991; ** 1992; ***1996.

Table 2. 1.2
GDP components and indices of the Human Development Index for OECS countries 1999 to 2000[a]

OECS Country	GDP per Capita Year 1999		GDP Index Year 1999		GDP Per Capita Year 2000		GDP Index Year 2000	
	Const. Prices	PPP US$	Const. Prices	PPP US$	Const. Prices	PPP US$	Const. Prices	PPP US$
Anguilla	5,349	…	0.664	n.a.	5,038	n/a	0.65	n/a
Antigua & Barbuda	6,288	10,225	0.691	0.772	6,399	10,541	0.69	0.78
B.V.I.	22,495	…	0.904	n/a	33,713	n/a	0.97	n/a
Dominica	2,185	5,425	0.515	0.667	2,195	5,880	0.52	0.68
Grenada	2,428	6,817	0.532	0.705	2,530	7,580	0.54	0.72
Montserrat	5,400	…	0.666	n.a.	4,223	n/a	0.62	n/a
St. Kitts & Nevis	4,865	11,596	0.648	0.793	4,655	12,510	0.64	0.81
St. Lucia	2,816	5,509	0.557	0.669	2,800	5,703	0.56	0.67
S.V.G.	2,009	5,309	0.501	0.663	2,041	5,555	0.50	0.67

(a) GDP-PPP figures are not available for all the countries covered by this report. To facilitate the most comprehensive review as well as comparability, the Indices have been prepared using both real GDP per capita (constant prices at factor cost) (US$) for year 1999 and 2000, and GDP per capita PPP (US$) for 1999 and 2000.

Source: Data on GDP per capita (PPP US$) are from the World Bank 2002. World Development Indicators. 2002. Washington D.C. Data on real GDP per capita constant prices at factor cost are from ECCB, Statistical Digest, 2001.

small, island states with open economies? To what extent must these be recognised by, and incorporated into any development indices? A major challenge for OECS countries, therefore is to determine the extent to which the data available can permit the development and application of these indices.

2. Contrasts in Level and Pace of Human Development

As indicated in chapter one, all OECS Member States have made progress in human development in the past decade, from expanding knowledge to improving survival to raising standards of living. Behind this record of overall progress is a more complex picture of diverse experiences across countries, which are advancing at different paces and achieving different levels of human development.

The data in Table 2.2.a. show the Human Development Index values for the years 1999 and 2000. An examination of the comparative positions of countries within the OECS shows that, in general, the group of Windward Islands lags behind the pace of human development of the Leeward Islands. Indeed this marked distinction in level of human development as depicted by the HDI is reflected in the rankings for both UNDP and OECS values.

On the whole, most of the OECS Member States are classified in the medium human development category, except BVI and St. Kitts and Nevis, which achieve the high human development category position. As the data in Table 2.2.a show, the HDI values based on year 2000 data ranged from 0.678 (St Vincent and the Grenadines) to 0.922 for British Virgin Islands (using constant GDP prices). When the GDP per capita PPP (US$) is applied, (eliminating three of the Leeward Islands for whom data are unavailable), St. Vincent and the Grenadines remains at the low end of the HDI (0.733) while the

Leeward Islands, St. Kitts and the Nevis, moves to the highest rank (0.814). It may be noted as well that the inclusion of the British Virgin Islands, Anguilla and Montserrat has effectively pushed most of the other countries down from their relatively high positions on the HDI. This is the case whether or not, for these three countries, the rank positions on the three sub-indices of the HDI are consistent. Antigua and Barbuda is the only exception – retaining a similarly relatively high ranking on both HDIs.

Although the link between economic prosperity and human development is not clearly known, nor is it automatic, (since, for example, two countries with similar income levels could have different HDIs, or vice versa), an assessment of the differences in HDI versus GDP ranks in table 2.2.b. shows that three out of the nine OECS countries, (Dominica, Montserrat and St. Kitts/Nevis) rank higher on the HDI than on the GDP per capita factor, thus suggesting that these countries have had some effectiveness in converting income into human development. The opposite holds for the other countries where the GDP per capita rank minus the HDI rank is negative or zero, implying less efficiency in translating economic prosperity into better lives in these countries. When the

Table 2.2.a.
Human Development Index (HDI) value for OECS countries 1999 to 2000

	Human Development Index (HDI) Value						
	1999[b]			2000[a]			
	GDP (PPP prices US$)		GDP (constant prices at factor cost)	GDP (PPP prices US$)		GDP (constant prices at factor cost)	
Country	OECS (UNDP)	(OECS)			Value	Rank	Value	Rank
Anguilla	n/a	n/a	0.753	n/a	n/a	0.750	5
Ant-Barb	0.795	0.798	0.771	0.800	2	0.772	2
BVI	n/a	n/a	0.900	n/a	n/a	0.922	1
Dominica	0.800	0.775	0.724	0.779	3	0.724	6
Grenada	0.795	0.741	0.683	0.747	5	0.686	8
Montserrat	n/a.	n/a	0.766	n/a	n/a	0.752	4
St. Kitts & Nevis	0.800	0.810	0.761	0.814	1	0.759	3
St. Lucia	0.749	0.762	0.724	0.764	4	0.724	7
S.V.G.	0.748	0.731	0.677	0.733	6	0.678	9

[a] Source: The HDI value for 2000 (PPP US$) was obtained from the UNDP Human Development Report 2002, which utilized data from the OECS Secretariat and National Statistical Offices for construction of the education and life expectancy indices. Data on GDP per capita (PPP US$) are from the World Bank 2002. World Development Indicators. 2002. Washington D.C. Data on real GDP per capita constant prices at factor cost are from ECCB, Statistical Digest, 2001. It is to be noted that the UNDP 2002 Report utilises a different data source for the life expectancy at birth for St. Lucia - UN (United Nations) 2001. World Population Prospects 1950 –2050: The 2000 Revision, Database. Dept of Economic and Social Affairs, Population Division, New York. This results in a slightly higher HDI value for St. Lucia (0.772). The ranking position of St. Lucia within the OECS region remains unchanged however.

[b] It is to be noted that comparability between the 1999 HDI values (UNDP and OECS) is not possible due to the introduction of newly available national data on the OECS index. The UNDP 1999 HDI value was derived using estimates for two components of the index due to the unavailability of the data from the primary sources. The income GDP PPP US$ remains constant in both sets of estimates. Hence, if a country ranks lower or higher on the HDI compared to the previous year, this does not necessarily mean that the state of human development has deteriorated or improved. A drop or rise could be attributed to the change in data inputs.

GDP PPP (US$) is used, both Dominica and St. Lucia retain this positive ranking.

Observed variations in the HDIs could, to some extent, be explained by differences among countries in the individual components of the index. Generally speaking, one would expect a greater association between GDP and Life Expectancy, or between the other components such as Life Expectancy and Education. But an examination of the comparative positions of countries within the OECS shows that the rankings are not always consistent. Comparing only the six countries for which GDP-PPP(US$) figures are available, Antigua which ranks second on the GDP Index (0.78) in 2000, is the highest on the Longevity Index (0.815), but fifth on the Education Index (0.807). On the other hand, Dominica, which ranks much lower on the GDP Index (fifth), runs second on both the Life Expectancy and Education Indices – a reflection of greater efficiency in use of resources for human development as indicated above in the GDP minus HDI positive value.

Similar inconsistencies may be noted when all nine countries are compared using the available real GDP per capita (at factor cost) figures. Thus for example, Antigua ranks second on the GDP Index but 4th on the Life Expectancy Index and sixth on the Education Index. St. Kitts-Nevis ranks second on the Education Index, but 5th on the GDP Index and seventh on the Longevity Index. Finally, Anguilla ranks first on the Longevity Index but fourth on the GDP Index and last on the Education Index. It is to be noted that, whether or not real GDP or GDP-PPP US$ figures are used, the rank positions for St. Lucia and St. Vincent and the Grenadines are consistently low on all indices.

At first glance, the following conclusions could be drawn from these figures:

- The relatively higher ranking of Dominica on the Life Expectancy or Educational components of the HDI index suggests that low GDP levels do not necessarily inhibit high levels of educational attainment and therefore a reasonable level of human development. Greater efficiency of resources is also being utilized in this case;
- The relatively low ranking of Antigua-Barbuda on the Education index, and for St. Kitts-Nevis on the Life-Expectancy index, but fairly good rankings on the GDP index (PPP US$) could mean that economic gains are not being translated into social development ones.

Nevertheless, on the whole, the wide variations in the rankings on the Education Index, GDP and Life Expectancy Index in Anguilla, St. Kitts-Nevis, and Grenada remain unexplained, especially when a greater association between GDP and Life Expectancy, or between Life Expectancy and Education might be expected.

A further comparison of the countries when ranked according to their poverty rates, degree of inequality, GDP and HDI also raises a number of intriguing issues [See Table 2. 2.b.]. Thus for example, St. Lucia – which gets relatively low rankings on any of the components of the HDI index, nevertheless has one of the lowest poverty rates, yet seems to be one of the most unequal in terms of income distribution; Antigua has the second highest ranking in terms of GDP per capita, but would appear to have the second highest level of inequality. Finally, it should be noted that on the poverty scale, although Dominica, Grenada, and St. Kitts are ranked at positions number 4, 3 and 2, respectively, their poverty rates are sepa-

Table 2.2.b.
General Performance Indices and Indicators – Rank Ordering -OECS countries

Country	Poverty Rate	Gini Coeff. (Const. Prices)	HDI(a) Using real GDP per capita (PPP US$)	HDI(b) Using - GDP - per capita Prices)	GDP – per capita (Const.	GDP – per capita (PPP US$) minus HDI	GDP per capita (Const. Prices) minus HDI rank[a]	GDP – per capita (PPP US$) rank[a]
Anguilla	…	…	5	n.a.	3	n/a	-2	n/a
Ant-Barb	…	5	2	2	2	2	0	0
BVIslands	…	…	1	n/a	1	n/a	0	n/a
Dominica	4	3	6	3	8	4	2	1
Grenada	3	2	8	5	7	3	-1	-2
Montserrat	…	…	4	n/a	5	n/a	1	n/a
St. K-Nevis	2	1	3	1	4	1	1	0
St. Lucia	1	4	7	4	6	5	-1	1
SVG	4	6	9	6	9	6	0	0

NB: Poverty rate: 1 = lowest poverty rate; HDI: 1 = highest HDI; Gini Coeff.: 1 = least unequal; GDP per cap: 1 = highest GDP p.c. (a) A positive figure indicates that the HDI rank is better than the real GDP per capita rank, a negative the opposite.
Sources: Kairi Country Poverty Assessments, World Bank Indicators, UNDP Human Development Report 2002

rated by two percentage points only. This means that although St. Kitts-Nevis scores well on the rankings for inequality (the Gini coefficient), and the GDP Indices, their poverty rate is nonetheless similar to those found in Grenada and Dominica where the per capita GDPs are much lower.

3. Social Indicator Development for Small States

Further examination of the extent to which these indices are adequately capturing the social and economic realities in the OECS countries would therefore seem necessary. If annual progress in economic development is to be accurately measured, more robust and sensitive measures and greater consistency in the quality of the trend data are required.[1] Certainly data deficiencies and inadequacies in the OECS region are general, serious, and long-standing. Thus for example, gender-disaggregated educational, or nutritional data necessary for the calculation of the Human Poverty Index or the Gender Development Index are not available at the national and aggregate level. Income data are notoriously absent or unreliable; reliable crime statistics are rarely available; and morbidity data that could perhaps provide more accurate data on the health burden are almost non-existent. In general, even where some data may exist, they are patchy, and the time series necessary for the analysis of trends and patterns are more often than not unavailable.[2] In this regard, social data are the most problematic and deficient.

More particularly however, it is necessary to recognise and incorporate the peculiar features of small states. The concern is not new, in that development analysts and policy-makers have long been sensitive to the constraints of small size, and the vulnerability of economies that have been as open and mono-crop dependent as these have been. To this has been added the increasingly acute recognition of the likelihood that social and natural

crises will "tend to affect a greater proportion of the population of small states and have a significantly larger economic impact". It could also mean that small states are less able to bounce back after a crisis. Given their size, ecology, geographical location, and historic dependence on price-taking activity (such as export agriculture), the issue of vulnerability to crisis looms large in the OECS. It is possible for achievements in human development to be easily wiped out or even reversed by events over which there may be little individual, community or national control.

Assessments of human development in the OECS, as well as the monitoring indicators developed may therefore have to take account of the insecurities and vulnerabilities that could bedevil efforts to expand opportunity. There are now a number of attempts to define and measure vulnerability in the Caribbean context. The development and application of a Composite Vulnerability Index (CVI) has been one of the more well-known attempts at to tackle the issue. However, considerably more work is needed if these measures and indices are to be able to accurately and efficiently assess economies' comparative vulnerability to shocks.[3]

4. Developing an Adjusted Human Development Index

Indices of human development are based on concepts of human rights, as well as on notions about what are required to achieve social and economic well being at individual, community and national levels. An accurate indication and tracking of changes in those areas of weakness and vulnerability that either impede progress in the desired direction, and/or are consequences of existing development initiatives and policies are therefore critical for any planning process. It has been suggested that:

> Vulnerability …means not lack or want, but defencelessness, insecurity and exposure to risks, shocks and stress…vulnerability and its opposite, security, stand out as recurrent concerns of poor people which professional definitions of poverty overlook.

It is necessary then to be able to determine both the level or degree of "lack or want", and the character and extent of defencelessness and insecurity. These will make up the state of vulnerability. Within this framework, the capacity to undertake and sustain a given developmental path may be determined. In light of the special development challenges faced by small societies and economies such as those found in the Caribbean region important questions must therefore be:

- How should weakness and vulnerability be defined in the context of the Caribbean – and especially in the region inhabited by the smaller countries of the OECS?
  - How should resilience and sustainability be defined in this environment; and
  - How can resilience and sustainability be achieved in this context? A related question here would also have to be – Is this different from the situations in other countries, and if so how?

Any adjusted indices will then be based on some of the variables traditionally used, but must also seek to include measures that speak to the issues of resilience and sustainability in threatened environments. Adjusted indices therefore ought to be able to help provide answers to the following questions:

- What gaps need to be filled so as to get to a given condition (such as the level of development?)

- What are the opportunities / possibilities for achieving resilience and sustainability? and
- What is needed to be able to achieve resilience and sustainability?

4.1. Resilience and Sustainability

The concepts of resilience and sustainability are not new. Nevertheless, clear definitions and standard modes of measurement continue to be somewhat elusive.

When the concepts of resilience and sustainability are linked, the following statement is true: competitiveness requires resilience and sustained development at particular levels. But this immediately introduces another difficulty: that of determining what those levels might (or ought to) be. Certainly it is possible to work with variables like the poverty line, basic food intake, minimum wages, minimum social investment levels, but it seems more useful to consider relative levels of attainment in most of the other areas – with a focus then on the gaps between the OECS, other middle-income countries, other small states, and the developed world. In the indices presented below focus will be on relative positions. This follows the framework of the existing UNDP indices.

Within this framework the following statements should also hold:

- Conversely, sustainable development will require competitiveness - internally and externally. In the OECS, lack of external competitiveness will mean non-survival;
- A society and economy can be sustainable but not resilient in the face of external shock; but
- Being resilient is likely to improve the possibilities for longer-term sustainability. In this regard an adaptive strategy can be sustainable, whereas a coping strategy is not.

Given the recognised need to build and improve competitiveness, the state that needs to be sustained is that which can support competitiveness. There will be overlapping elements or dimensions in any definition of resilience and sustainability. This report seeks to begin the task – even with the limited information and data available.

In the next sections the results of integrating the indices of resilience and susceptibility into the development indices are examined and discussed. This is followed by further analysis of the possible association between these indices and the Index of Exposure.

4.2. Adjusting the Indices - Definitions and Operationalisation

With regard to the concept and measurement of human development, it is possible to more specifically identify what are considered to be the most critical components. This is based on the above discussion as well as the analyses and conclusions of the chapters of this report. The Index will have at its core the concept of *vulnerability* – which in turn will have three basic dimensions: (1) Disadvantage (economic, social and political) (2) Resilience (social and economic) (3) sustainability (social and economic). (4) A fourth and separate Index of Exposure is also calculated. See Box 2.2. and Appendix.

5. An Adjusted Index of Human Development

5.1 Indicating Disadvantage

Disadvantage can be thought of as anything that makes a country less well off relative to another country. From the preceding discussion, disadvantage can be assessed through economic and social

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indicators that are considered to be reflective of a nation's level of disadvantage, these are: gross capital formation, net foreign investment flows, real GDP per capita, per capita income, food poverty levels, general poverty levels, levels of educational attainment, health status, unemployment and access to adequate water facilities. An Index of Disadvantage (with comparable figures for the USA, other middle-income countries, and Latin American and Caribbean (LAC) is provided in Table 2.3.

In evaluating Table 2.3, it should be noted that the data for the USA and Middle Income Countries are only given for comparative purposes. The economic and social underpinnings of the Middle-Income countries and the USA are not comparable on a strict, one-to-one, correspondence with the OECS data. Nevertheless, the comparison gives some indicative measures for further analysis. The data for 1998 and 1999 was derived using a different methodology and data base (see technical appendix) and therefore it is not strictly comparable to the 1990 –1997 period.

In general, during the period 1998-1999 period, all the OECS countries have shown improvement in the disadvantage index, with the exception of Montserrat (due to the volcanic eruptions). Comparatively speaking, it will be seen that, in 1999, the level of performance of all OECS countries generally exceeds the averages for the LAC region, and five of the OECS countries have higher scores than those obtained for Other Middle-Income Countries.

Finally, attention is drawn to the 1990-1997 period where, despite observed volatility of some of the scores, on the whole, most of the OECS countries register overall improvements in the disadvantage index, with the exception of Grenada, which declined marginally by 17 per cent and demonstrated more pronounced fluctuations. The fluctuations seen for some countries may be generally accounted for by a fall-off in gross capital formation – expressed as a percentage of real GDP – (for all countries except Antigua), a drop in real per capita health expenditures, and lack of sustained improvement in educational attainment – as measured in this Report.

An important question must now be: to what extent is relative strength (or weakness) associated with resilience, the likelihood for longer-term sustainability, and how are these influenced by exposure to external shocks?

5.2. Indicating Resilience

In the case of resilience, despite observed volatility in the scores, the overall pattern in the 1990-1997 period seems to be one of gaining strength and greater resilience for the OECS countries, with the exception of St. Vincent and the Grenadines and Antigua and Barbuda. It is to be noted that both the Middle Income countries and USA, as points of reference, declined over the same period. With the exception of the BVI, the 1998-99 period showed signs that the OECS countries were beginning to lose some resilience, as reflected in modest declines in the scores, the largest being Montserrat (28%). Two exceptions are the case of BVI, which experienced marginal improvement, and Grenada, which maintained the same level of resilience over the 1998-1999 period. [See Table 2.4].

Those countries recording improvement in resilience over the 1990-1997 period are also the ones where there have been attempts to maintain the proportional (that is, of total government expen-

diture) levels of health and educational expenditures, and/or there has been an improvement in the educational performance levels. Two of the four countries (St. Kitts- Nevis and Dominica) which register a higher level of resilience, between 1990 and 1999, also exhibit greater economic diversification with their top three economic sectors accounting for a lower proportion of total economic output. In the case of Grenada, the level of economic diversification is higher than most of the other islands, but the fall-off in educational attainment has been significant, and it now has one of the lowest scores in this area [See Tables 4.6 and 4.7 and Box 4.1, Chapter 4]. In addition, Grenada is the only OECS country in which youth unemployment (used here as a possible indicator of the extent to

Box 2.2
Computing the Adjusted Human Development Index for the OECS

The Adjusted Human Development Index is comprised of three (3) sub-indices. The components and the methods utilised for their calculation are summarised below:

Index of Disadvantage:

- Physical Capital
  Gross domestic investment;
  Net foreign investment flows;
- Production output - real GDP per capita;
- Poverty level
- Levels of educational attainment
- Health status – Life Expectancy Rates
- Employment/unemployment, - Access to potable water

Method
An index was calculated which captures each country's attainment in each of the categories listed above. These sub-indices were then averaged to obtain the Index of Disadvantage.

Index of Resilience

- Years of potential life lost (YPLL).
- Real per capita expenditure on health, and education;
- health , educational expendi ture as percentages of total Government expenditure
- No. of low birth weight babies
- Per capita intake of calories
- No. of students satisfying the critera for the award of identified grades in Caribbean Examinations Council(CXC) English and Mathematics examinations
- Youth unemployment
- GDP per capita
- Gross international reserves
- Geographical size
- Population density
- Economic diversification

Method
An index was calculated which captures each country's attainment in each of the categories listed above. These sub-indices were then averaged to obtain the Index of Resilience.

Index of Sustainability

- Real changes in health and education expenditure
- Level of food poverty
- Changes in the grade level pass rates for CXC English and Mathematics
- Level of crime
- Housing conditions (access to potable/improved water)
- Population stability
- Gross capital formation as a percent of GDP
- Changes in productivity
- The level of savings as a percent of GDP
- Credit efficiency

Method
An index was calculated which captures each country's attainment in each of the categories listed above. These sub-indices were then averaged to obtain the Index of Sustainability.

A separate Index of Exposure was also calculated with two sub-components:

a) Economic exposure; -

- the degree of export and import (inclusive of imported commercial energy)
- dependence, dependence on foreign finance
- insularity and remoteness
- export concentration or export diversification

b) *Exposure to environmental events and hazards*.

Method A weighted average of the index of exposure to foreign economic conditions (10%), index of remoteness and insularity (40%) and the index of proneness to economic disaster (50%) was calculated.

Table 2.3
Disadvantage index

Year	United States	Middle Income Countries	Latin America and the Caribbean	B'dos	Dom.	St. Lucia	Gren.	St. Vin.	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.760	0.510	0.395	0.511	0.405	0.401	0.463	0.386	0.612	0.452	0.573	0.661
1991	0.704	0.422	0.308	0.431	0.422	0.345	0.428	0.375	0.527	0.450	0.514	0.587
1992	0.778	0.475	0.361	0.450	0.373	0.408	0.419	0.400	0.564	0.426	0.518	0.704
1993	0.773	0.490	0.374	0.464	0.395	0.442	0.407	0.401	0.573	0.441	0.544	0.744
1994	0.776	0.468	0.355	0.475	0.419	0.370	0.311	0.435	0.503	0.440	0.559	0.743
1995	0.764	0.486	0.337	0.478	0.446	0.358	0.341	0.419	0.548	0.581	0.488	0.665
1996	0.765	0.498	0.343	0.503	0.398	0.430	0.403	0.390	0.603	0.625	0.522	0.659
1997	0.786	0.514	0.377	0.512	0.435	0.401	0.384	0.439	0.543	0.599	0.549	0.652
1998	0.741	0.485	0.305	0.527	0.389	0.305	0.374	0.438	0.512	0.497	0.616	0.502
1999	0.761	0.513	0.319	0.558	0.448	0.352	0.384	0.440	0.533	0.515	0.526	0.590

a) The table has been presented in two parts because of the difficulties in comparing the Educational performance data pre-1998 and post-1997 (See Chapter 4 and Technical note Appendix). Trend analyses for the overall period must therefore be cautious.
Source: Figures computed from data obtained from the ECCB Annual Statistical Digest, ECCB National Account Statistics, International Labour Organisation, Development Planning Unit, World Bank World Development Indicators (2000)

which the new supplies of labour match, or meet actual demand for labour) has actually increased over the period examined [See Table 3.4, Chapter 3]. It must, however, be noted that on this index, over time, the changes in either direction have not been large, and in all cases the performance levels have tended to fluctuate.

5.3. Indicating Sustainability

The results obtained from the calculation of the index of sustainability (which measures rates of change in a given factor) are more clear-cut, although less positive. In eight of the nine countries, the value of the sustainability index declined over the period 1990 to 1999 [See Table 2.5 & Box 2.2]. The case of Montserrat is peculiar as changes in the index value over the last 4 years are no doubt related to post-volcanic rehabilitation efforts, in the form of remittances, grants, and other forms of human resource and financial assistance from regional and international agencies.

Among the many factors which may have caused the declining levels of sustainability are the following: higher levels of food poverty, crime, declining rates of gross capital formation and productivity in most of the countries. The declining levels of sustainability are normally associated with falls in educational performance as well as the inability of countries to keep their health expenditures in line with population growth. This may be particularly true in the case of St. Lucia, St. Kitts and Nevis and Antigua and Barbuda [See Chart 5.3 & 5.4, Chapter 5]. Between 1997-1998, the improvement that is apparent in four countries (Grenada, Anguilla, Antigua and Barbuda and BVI) may be due to the higher educational performance levels suggested by the expansion of acceptable CXC grades. One possible conclusion from these findings is that some resilience can be associated with relatively low levels of sustainability. This finding helps illustrate the complexity of

Table 2.4
Index of resilience

Year	United States	Middle Income Count.	Latin America and the Caribbean	B'dos	Dom.	St. Lucia	Gren.	SVG.	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.690	0.690	0.398	0.451	0.351	0.332	0.306	0.294	0.212	0.340	0.369	0.374	0.416
1991	0.679	0.679	0.405	0.435	0.359	0.331	0.308	0.276	0.208	0.343	0.385	0.365	0.411
1992	0.660	0.660	0.397	0.434	0.339	0.312	0.310	0.275	0.208	0.363	0.377	0.369	0.393
1993	0.668	0.668	0.354	0.450	0.319	0.316	0.281	0.260	0.208	0.346	0.375	0.352	0.463
1994	0.661	0.637	0.399	0.463	0.334	0.315	0.294	0.281	0.216	0.380	0.373	0.430	0.484
1995	0.646	0.641	0.409	0.454	0.342	0.320	0.302	0.281	0.212	0.343	0.386	0.437	0.506
1996	0.638	0645	0.407	0.477	0.370	0.343	0.343	0.317	0.193	0.368	0.345	0.505	0.536
1997	0.628	0.646	0.405	0.474	0.381	0.371	0.315	0.271	0.286	0.347	0.324	0.472	0.528
1998 a)	0.619	0.686	0.389	0.452	0.368	0.350	0.288	0.282	0.266	0.360	0.323	0.451	0.488
1999	0.627	0.691	0.398	0.471	0.358	0.329	0.287	0.276	0.254	0.350	0.300	0.322	0.491

a) The table has been presented in two parts because of the difficulties in comparing the Educational performance data pre-1998 and post-1997 (See Chapter 4 and Technical note Appendix). Trend analyses for the overall period must therefore be cautious.
Source: Figures computed from data obtained from the ECCB Annual Statistical Digest, ECCB National Account Statistics, International Labour Organisation, Development Planning Unit, World Bank World Development Indicators (2000)

the disadvantage of OECS countries within the global environment, and the magnitude of the challenge if competitiveness is to be achieved. In the next section, the correlation between these indices and those measuring exposure are examined. But it is to be noted that correlation does not imply causation.

5.4. Index of Exposure

Preliminary results indicate that over the ten-year period ending 1999, economic exposure has, on average, increased in the countries examined. These calculations show that over the period 1990-99, exposure rose by approximately 53%. Those countries registering a higher level of exposure included Grenada, Montserrat and St. Kitts-Nevis. For the most part, increases in exposure to disaster, and remoteness and insularity, were the main sources of increased exposure in these countries. [See Table 2.6]

5.5. Relationships among Indices

The next step is to examine the extent to which there may be any significant association between the different indices: thus, for example, how much of the variation in the other indices may be associated by that in the Index of Exposure? Preliminary analysis of the relationship between the indices suggests a number of negative relationships: thus, economic exposure would appear to be negatively associated with both resilience and sustainability; resilience and sustainability are also negatively associated with each other. This latter possibility - that is, that increasing resilience could result in a reduction in sustainability - is an intriguing one, and clearly requires further exploration, as it would imply the need for close attention to the kinds of policy choices that would need to be made. In general, the nature of the associations found are not unexpected; most growth studies in the Caribbean and elsewhere argue and anticipate that higher levels of resilience, and greater sustainability will

WHERE SOCIAL WELL-BEING, HUMAN CAPITAL INVESTMENTS, AND GROSS CAPITAL FORMATION ARE ALL LIMITED AND INADEQUATE, OVERALL DEVELOPMENT PERFORMANCE WILL ALSO BE LIMITED

be associated with lower levels of disadvantage; and that greater exposure will be linked with higher levels of disadvantage. The recent experiences in Montserrat also provide a good example of this. At the same time the positive relationship found between economic growth and exposure could also be understood in light of the ongoing arguments about the benefits and disadvantages of integration into the international economy. However, it must be emphasised that none of these relationships was found to be statistically significant. It is therefore not now possible to draw any firm or further conclusions about causal relationships between exposure to external hazard (man-made or otherwise] on the one hand, and the levels of disadvantage, resilience, and sustainability, on the other. In large measure, these analytical difficulties and inconclusive findings may be traced to the inadequacy and insufficiency of the data available. The situation is no doubt likely to be a complex one; however, it is possible that the character and the policy implications from the data analysis may be misinterpreted; thus there is a need for greater and more systematic attention to the production and generation of the kinds of data needed for these types of analyses. The indices also need to be refined so that those variables with the greatest predictive power can be isolated. The current absence of robust time series data does not now allow to isolate data of great predictive power. Nevertheless the data provide some indication of what ought to be the way forward – from analytical as well as policy perspectives. These issues are discussed in more detail in the concluding chapter; but at this point it may be noted that, as stated at the beginning of this report, since survival and

Table 2.5
Index of sustainability

Year	United States	Middle Income Countries	Latin America and the Caribbean	B'dos.	Dom.	St. Lucia	Gren.	St. Vinc.	Ang.	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.589	0.795	0.851	0.459	0.567	0.526	0.547	...	0.532	0.638	0.538	0.406	0.616
1991	0.520	0.677	0.717	0.317	0.599	0.452	0.475	...	0.440	0.524	0.534	0.370	0.549
1992	0.580	0.612	0.675	0.277	0.439	0.551	0.416	...	0.394	0.661	0.523	0.482	0.621
1993	0.513	0.666	0.675	0.556	0.473	0.506	0.347	...	0.393	0.652	0.496	0.533	0.540
1994	0.560	0.597	0.771	0.464	0.490	0.500	0.401	...	0.422	0.651	0.457	0.592	0.618
1995	0.442	0.618	0.493	0.389	0.415	0.365	0.405	...	0.273	0.582	0.534	0.386	0.404
1996	0.546	0.688	0.619	0.419	0.531	0.505	0.504	...	0.361	0.654	0.468	0.479	0.496
1997	0.578	0.654	0.698	0.372	0.545	0.487	0.454	...	0.437	0.549	0.503	0.523	0.551
1998	0.471	0.511	0.592	0.416	0.500	0.388	0.310	...	0.436	0.624	0.479	0.525	0.507
1999	0.479	0.473	0.580	0.466	0.473	0.350	0.517	...	0.489	0.518	0.489	0.489	0.570

a) The table has been presented in two parts because of the difficulties in comparing the Educational performance data pre-1998 and post-1997 (See Chapter 4 and Technical note Appendix). Trend analyses for the overall period must therefore be cautious.
Source: Figures computed from data obtained from the ECCB Annual Statistical Digest, ECCB National Account Statistics, International Labour Organisation, Development Planning Unit, World Bank World Development Indicators (2000)
NB: Figures for St. Vincent have not been provided as there are too many data gaps – thereby affecting the usefulness of the calculations.
Source: Figures computed from data obtained from the ECCB Annual Statistical Digest, ECCB National Account Statistics, International Labour Organisation, Development Planning Unit, World Bank World Development Indicators (2000)

Box 2. 3
Rank position: Indices of sustainability and resilience - selected years

Year	Sustainability		Resilience	
	1990	1999	1990	1999
LAC	1	1	3	4
Barbados	9	10	1	2
Anguilla	7	5	11	11
Antigua	6	5	5	8
British Virgin Islands	3	2	2	1
Dominica	4	9	6	6
Grenada	5	4	9	10
Montserrat	10	5	4	3
St. Kitts	2	3	7	5
St. Lucia	8	9	8	7
St. Vincent	…	…	10	9

growth in the OECS countries require open participation in the global environment, the basic challenge for most countries would therefore still seem to be twofold. These are:

- how to maintain growth even while being influenced by, and integrated into the external environment; and
- how to protect the growth process against any possible and/or necessary trade-offs between achieving resilience, and ensuring sustainability.

The analysis so far also shows the importance of moving beyond simplistic applications of indices of exposure to development indicators and possibilities.

5.6. An Adjusted HDI

Finally an adjusted index of human development was computed as the aver-

Table 2.6
Index of exposure in the OECS

Year	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	Antigua & Barbuda	Montserrat	St Kitts & Nevis	British Virgin Islands	OECS Average
1990	0.096	0.085	0.004	0.085	…	…	…	…	…	0.068
1991	0.085	0.083	0.021	0.073	…	0.101	0.215	0.108	…	0.098
1992	0.084	0.082	0.019	0.071	…	0.104	0.207	0.103	…	0.096
1993	0.083	0.083	0.025	0.071	…	0.099	0.204	0.111	…	0.097
1994	0.111	0.115	0.081	0.101	…	0.097	0.300	0.157	…	0.137
1995	0.132	0.131	0.133	0.121	…	0.095	0.242	0.232	…	0.155
1996	0.083	0.083	0.037	0.070	…	0.085	n.a.	0.124	…	0.080
1997	0.085	0.086	0.035	0.073	…	0.081	0.185	0.117	…	0.095
1998	0.075	0.076	0.024	0.065	…	0.081	0.280	0.111	…	0.102
1999	0.075	0.078	0.015	0.064	…	0.081	0.300	0.112	…	0.104

Source: Figures computed from data obtained from the ECCB Annual Statistical Digest, ECCB National Account Statistics, International Labour Organisation, Development Planning Unit, World Bank World Development Indicators (2000)

EXPOSURE MAY NOT NECESSARILY MEAN SOCIO-ECONOMIC CATASTROPHE: THE OPPORTUNITIES RATHER THAN THE POSSIBLE DRAWBACKS THEREFORE NEED TO BE BETTER EXPLORED AND CAPTURED

age of the resilience, sustainability and disadvantage indices, and these results are reported in Table 2.7. In general, when one looks at the adjusted HDI, all the reference point countries (USA, Middle Income, LAC and Barbados) showed declines during the period 1990-1997. This is in keeping with the pattern for some OECS countries, and to be contrasted with OECS countries such as Dominica, Antigua and Barbuda, Montserrat and the BVI, which experienced increases in their adjusted HDI over the same period; St. Lucia maintained its original level.

Over the 1998-1999 period, compared to the increase experienced by the reference points, three OECS countries reflected increases in their AHDI. The British Virgin Islands, on average, seem to have a higher level of human development than the other OECS nations, while St. Lucia has the lowest level. The value of the adjusted human development index for the highest ranked OECS country - the British Virgin Islands - was 85 % of that registered for the United States, and 89% of the average registered for middle-income countries.

As already indicated, a great deal more work needs to be done to refine theses indices and more consistent and better data are required if the indices are to acquire the accuracy and robustness desired. This Adjusted Index is however considered a good point of departure to capture Caribbean realities; its breakdown into different components also allows an understanding of some of the areas of weakness and fragility. In Table 2.8 the AHDI values, and the rankings for the component indices are presented.

6. Conclusion

There are a number of conclusions that could be drawn. First, the AHDI portrays different development performance levels as well as different orderings of the countries – that is, when compared with the more traditional HDI. In the case of the OECS countries, the variation is less marked. The Adjusted HDI shows that the average OECS value is 71% of the USA value, 74% of the Middle Income Countries and 94% of the LAC region.

In comparing relative rank positions on the Adjusted HDI, although the components of the AHDI index differ from the traditional HDI, a similar general picture emerges – the group of Windward Islands lags behind the pace of human development of the Leeward islands. It may also be noted that while St. Kitts and Nevis and Antigua and Barbuda retain their relatively moderate-to-high positions, they are again pushed down the scale by the better performance of countries like the British Virgin Islands and Montserrat - where their performance on most of the social and economic indicators surpasses that of the other countries.

Second, the overall AHDI and changes therein would appear to be very sensitive to positions on, or changes in the Sustainability and Disadvantage Indices. In this regard, the sustainability index should be examined for the extent of its greater sensitivity to human development levels. At the same time the levels of resilience could affect the overall AHDI. As a matter of policy, it would be important to determine the levels at which increases in sustainability and disadvantage influence changes in the levels of resilience. The data indicated high levels of fluctuation in all of the indices, and this would suggest the need for more careful planning if robust development is to be sustained in these countries.

The Exposure index was inconclusive as a policy tool. There may be a need for

Table 2.7
Adjusted development index

Year	United States	Middle Income Countries	Latin America and the Caribbean	B'dos	Dom.	St. Lucia	Gren.	S.V.G.	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.680	0.647	0.548	0.473	0.441	0.420	0.439	0.433	0.530	0.453	0.451	0.564
1991	0.634	0.575	0.477	0.394	0.460	0.376	0.404	0.402	0.465	0.456	0.416	0.516
1992	0.672	0.570	0.478	0.387	0.384	0.424	0.381	0.445	0.529	0.442	0.456	0.572
1993	0.651	0.621	0.482	0.490	0.399	0.424	0.349	0.405	0.527	0.440	0.483	0.582
1994	0.666	0.567	0.512	0.467	0.415	0.385	0.335	0.419	0.511	0.423	0.527	0.615
1995	0.618	0.582	0.413	0.440	0.401	0.347	0.349	0.418	0.491	0.500	0.437	0.525
1996	0.649	0.610	0.456	0.466	0.433	0.426	0.417	0.427	0.542	0.479	0.502	0.564
1997	0.664	0.605	0.494	0.453	0.453	0.420	0.384	0.437	0.480	0.475	0.515	0.577
1998 a)	0.610	0.561	0.429	0.465	0.419	0.347	0.324	0.442	0.499	0.433	0.531	0.499
1999	0.622	0.596	0.470	0.522	0.440	0.343	0.396	0.437	0.457	0.420	0.519	0.530

a) The table has been presented in two parts because of the difficulties in comparing the Educational performance data pre-1998 and post-1997 (See Chapter 4 and Technical note, Appendix I). Trend analyses for the overall period must therefore be cautious
NB: The figures for St. Vincent and the Grenadines – must be treated with even greater caution as the data gaps are such that the score obtained could either be *over* or *under*-estimated
Source: Figures computed from data obtained from the ECCB Annual Statistical Digest, ECCB National Account Statistics, International Labour Organisation, Development Planning Unit, World Bank World Development Indicators (2000)

greater policy attention to those factors both outside and within the system which are necessary to improve the levels of resilience, sustainability and growth of the countries. Where social well-being and human capital investments, and gross capital formation are all limited and inadequate, overall development performance will also be inhibited. At the same time, if social expenditures (as for example in health and education) are not being adequately reflected in output and performance levels, then the impacts on the development process being described here highlights the need for some policy review – certainly in respect of the effectiveness, efficiency and relevance of those inputs.

Third, it is a bit easier to understand the performance levels when the rankings on the AHDI are compared with those based on the measures of poverty and inequality. Thus for example, the relatively low ranking of countries such as Dominica, Grenada and possibly St. Vincent and the Grenadines can be more easily associated with the poverty and/or inequality levels found there. The St. Lucian case - where they have the lowest poverty rate, but are nevertheless at the lowest point on the OECS scale – would however seem to require some explanation. The most likely one is that there is a time lag: the poverty assessment was carried out in 1995 when St. Lucia did receive a relatively higher ranking on the AHDI. Comparison with a more recent poverty assessment would therefore be necessary and useful. At the present time, it may be suggested that their high unemployment levels, the moderate educational performance, the fragile health status (as indicated by the YPLL), and the relatively low and falling health care expenditure are all now weighing heavily against the achievement of better scores

Table 2.8
Human Development indices – OECS countries, 1999

Country	Resil. Index[b] Rank	Disadv. Index[b] Rank	Sustain. Index[b] Rank	Adj. HDI	Adj. HDI Rank
Anguilla	9	…[c]	4	(0.433)	…[c]
Antigua & Barbuda	6	4	4	0.444	4
B.V.I.	1	1	1	0.535	1
Dominica	4	5	7	0.428	5
Grenada	7	7	3	0.375	6
Montserrat	2	3	4	0.524	2
St. Kitts-Nevis	3	2	2	0.474	3
St. Lucia	5	8	8	0.350	7
S.V.G.	8	6	…[c]	(0.433)	…[c]

Adj-HDI: USA-- 0.661; OMIC-- 0.518; Latin American and the Caribbean-- 0.446
Disadvantage: USA-- 0.788; OMIC-- 0.432; LAC-- 0.319
a) This Index has been calculated with recently obtained Life Expectancy rates, Literacy rates, Gross Enrolment ratios, and GDP figures.
b) The larger the number, the less resilient, the more disadvantaged, and the less sustainable is the country situation.
c) The overall AHDI for St. Vincent and Anguilla are very tentative, as the absence of consistent trend data made it unwise to calculate a Sustainability Index for St. Vincent, and a Disadvantage Index for Anguilla.

on the disadvantage and sustainability values and therefore the overall AHDI value.

In this regard, it would be instructive to further examine the case of St. Kitts-Nevis; there is an interesting co-existence of events, viz: high GDP per capita; high level of exposure to foreign conditions; great diversification - as measured by sectoral concentration of GDP; a modest but steady level of educational expenditure – but inadequate pace of improvement in educational performance levels; falling health expenditure and relatively low health status; relatively low levels of productivity; high poverty levels; and very high youth unemployment. On the face of it this would appear to be an unsustainable situation in the longer term – unless efforts are made to address the current areas of weakness. In this report St. Kitts and Nevis still has the highest sustainability index value – but it is of some interest that it has very marked volatility, and it is important to understand, not only for St. Kitts and Nevis, but also for all the other OECS countries, what are the underpinning causes of the volatility. Future developments here could be a revealing test case of the reality and strength of relationships between the social and economic factors.

In general, it is difficult not to overemphasise the needs for the kinds of data that would allow a more systematic analysis of the apparent volatility between and within the various indices. Not only is a better understanding of the extent and meaning of that volatility required, but it would also assist the refinement of the indicators so that maximum sensitivity and predictive power may be obtained.

In the next chapter discussion will focus on the policy implications of these findings and analyses. Special attention will also be given to some of the gaps and deficiencies in the data that will need to be addressed if the kind of analyses undertaken here are to develop in ways that can be useful from an academic point of view, but especially for policy maker.

Endnotes

1 Compounding the problem is the continuing controversy about the merits and demerits of the PPP, the robustness of the empirical support for the Purchasing Power Parity (PPP), as well as the significant data gaps that make it difficult to move beyond regression-based estimations (especially in the developing countries). While the concept and goal are undoubtedly desirable and necessary, the continuing theoretical and methodological difficulties are sufficiently serious as to question its usefulness except on a very long-term basis. It has been shown for example that several factors may induce market imperfections and prevent the equilibrium in prices described by the theory of purchasing power parity. These can in turn thwart purchasing power parity. These factors include exchange rate instability, the existence of currency black markets, as well as information costs, transactions costs, transportation costs, and government-imposed restrictions [Norrbin & Conover, 1998; Baghestani, 1997; Baille and Selover, 1987; Corbae and Ouliaris, 1988; Taylor, 1988]

2 It must also be pointed out that frequently different data sources do not provide identical information. Thus for example, the most recent Life Expectancy rates provided by PAHO, CDB, National Statistical Offices, and UNDP/World Bank are not identical for a given year.

3 To begin with, there are serious flaws - conceptual, analytical and methodological that must be addressed [Crowards 2000]. In addition to technical difficulties having to do with the weighting procedures utilised, anomalies and deficiencies in the data imported into the calculations, and the statistical analytical techniques applied, the confusion between cause and effect factors and variables is perhaps the most serious error. As Crowards [2000:6] has specifically observed, the CVI's attempt to use historical volatility of income growth as a measure of future vulnerability to external shocks ignores "the important contribution of internal shocks to the volatility of income, the [difficulties in using]…historical volatility to predict vulnerability, and the complexity of the links between volatility of income and poor economic performance".

Were this CVI applied to the Caribbean region it would be found that high levels of vulnerability is associated with high income levels - as is the case in the Bahamas, while on the other hand a low level of vulnerability can be found in low income countries - as in Haiti. Briguglio [1997:3] seeks to explain this "seeming contradiction" as a probable consequence of the strategic importance ascribed to some small states: states ascribed this status tend to be "artificially propped up" by the large powers. It is however more likely that the problem is really a theoretical and methodological one. To begin with, it is important to draw a clear distinction between the occurrence of risk, and the ability to withstand risk [Commonwealth Secretariat 2000]. It is therefore the latter variable that must be drawn into Human Development Indices adjusted for the OECS region.

4 See Chapter 4 and the Technical Note – Appendix 1 for a discussion of the challenges in measuring educational performance

5 For a discussion of the problem of comparability of the educational data over time, see Chapter 4

6 Montserrat generally received high rankings: while this may to some extent indicate the strength of some of the social and economic fundamentals – the major disruptions caused by the volcanic eruptions may be expected to introduce some distortions in the various performance levels. For these reasons, any discussion of this case must be treated very cautiously.

CHAPTER THREE

Securing opportunities for secure livelihoods

Introduction

This chapter will provide a discussion and analysis on the issue of achieving competitiveness in the OECS countries with the aim of Securing Opportunities for Secure Livelihoods. To address this issue, three questions will be used to inform the discussion.

1. What are the principal needs to achieve competitiveness?
2. What is the current status of the OECS countries in terms of their capacity to achieve competitiveness?
3. What needs to be done to close any identified gaps and increase the competitiveness of these states?

Competitiveness is defined in this report as the ability to maintain and/or expand market shares while experiencing stable and sustainable economic growth to the benefit of the wider population. The OECS countries have been experiencing stable economic growth in recent times. However, the benefit to the wider population is in doubt as, while GDP and per capita incomes have been rising, increasing poverty levels have been reported [1].

Achieving competitiveness and securing opportunities for secure livelihoods means that these countries need to be

- Competitive and not disadvantaged in terms of their role in the international market;
- Resilient and not over exposed to conditions which are out of their control;
- Sustainable and not vulnerable to exogenous forces

In addressing these issues, this chapter will initially examine the existing capacities of the OECS region as it relates to the areas of vulnerability, disadvantage and possible opportunity. The identification of factors that are necessary for increasing resilience and improving the capacity to sustain social and economic development will follow. The chapter will therefore be structured as follows:

- The current status of the OECS region in terms of its capacity to achieve competitiveness will be described with reference to the existing capacities for development. Particular focus will be on the patterns of livelihood pursued (which mainly includes formal sector activities due to a lack of data on informal sector activities), employment status and job security, and the effect of the structure and dynamics of the labour market;
- The issues of poverty and employment will be addressed in relation to the under-utilisation of resources with special reference to the youth, and to gender differentials in the labour market; and
- The level of resilience in the OECS economies will be examined in relation

to the state of human resource management in the Member States, the flexibility of labour markets and exposure.

1 Existing capacities for development in the OECS Member States

Apart from natural beauty and a tropical climate that is utilised to attract tourism monies, the OECS member states must necessarily rely heavily on their human capital assets. Examination of existing data shows that the primary obstacles to development are the lack of capacity in terms of sources of output and employment (economic concentration), and the lack of an adequate human resource base. These, in turn, have serious consequences for the underutilisation of resources. This problem of resource underutilisation is especially seen among females, where, although they exhibit dominance throughout the educational system and in professional/managerial occupations, there are still significant wage, and power differentials.

1.1. Economic Concentration- Employment

The structures of the economies in the OECS Member States are fairly different in terms of the sectoral distribution of output and employment. Thus, while most concentrate on either the primary or the tertiary sectors, the areas of concentration will vary by country. The most documented example may be the continuing dominance of agriculture in the Windward Islands and the greater focus on financial and other services in countries like the British Virgin Islands.

As discussed earlier [See Chapter 1] there is nevertheless at least one common problem: that is, the concentration and reliance on only a few sectors for output and employment. This can easily exacerbate any problems arising from exposure and vulnerability to external forces and developments. The heavy dependence of most of the OECS countries on a limited number of economic activities in one or two exported commodities is similarly reflected in the sectoral distribution of employment. Table 3.1 highlights these concentrations. With the exception of Antigua and Barbuda, agriculture continues to play a prominent role, even though tourism and the other service sectors now make increasingly significant contributions to the livelihoods of all the people of the OECS countries.

The distribution of employment status across the OECS Member States shows that the private sector employs approximately 50% of workers, ranging from 43.3% in Dominica to 53.5% in Antigua and Barbuda for certain years (see Table 3.1 in the Appendix)[2]. Available data indicate that the public sector provides 23.4% of total employment (29.7% in St. Kitts and Nevis in 1991) and 25% of female employment (29% in Grenada in 1996).

Self-employment is most prominent in St. Lucia where 24.8% of the employed are own account workers. Self-employment also accounts for 28.7% of male employment. Overall, the self-employed, account for 17.9% of employment in the OECS region.

Those employed in agriculture in Dominica account for 23.7% of employment, while the hotel/restaurant sector and the telecommunications sector together comprise 15%. The corresponding figure for Antigua and Barbuda was approximately 23%, reflecting different sectoral balances across the primary and tertiary sectors in the OECS countries. The distribution of employment across the main sectors of the economies of the OECS, and the gender composition of

TOO MANY ASSETS IN THE REGION ARE UNDER-UTILISED AND THEIR DEVELOPMENT INHIBITED DUE TO ECONOMIC CONCENTRATION, RIGID LABOUR MARKETS AND POVERTY

Table 3.1: Concentration in the OECS Member States

Concentration	Leeward Islands				Windward Islands			OECS Regional Average
	Ang.	Ant.	S.K.N.	Dom.	Gren.	S.V.G.	S.L.	
% of GDP accounted for by Agriculture, Tourism and Communications (1)	47.0	27.0	20.0	34.0	30.0	23.0	30.0	30.14
Top 3 Employing Sectors (Excluding Public Sector) in order of highest (2)	-	Tourism Trade Const..	Agricul. Manufact. Trade	Agricul. Trade Manufact.	Trade Const Agricul.	Agricul. Trade Construct.	Agricul. Trade Tourism	
% of Employment accounted for by top 3 sectors (3)	-	42.9	71.3	48.3	46.8	51.1	52.3	44.67
Top 2 Exports in order of highest (4)	- -		Intermediate Goods Capital Goods	Bananas Soap	Nutmeg Electronic Compo-nents	Bananas Flour	Bananas Clothing	
% of Total Exports accounted for by top two exports (5)	-	-	92.4	56.2	62.7	58.9	60.9	47.30

*Includes Transport
Note: Trade includes both Wholesale and Retail Trade
(1) Derived from ECCB National Account Statistics (2000)
(2) Derived from ILO (2001)
(3) Derived from ILO (2001)
(4) Derived from ECCB National Accounts Statistics (2000)
(5) Derived from ECCB National Accounts Statistics (2000)

employment in the member states is shown in table 3.4. in the Appendix.

The concentration level in the top three employing sectors is much higher than that seen in their contribution to GDP. This is especially so in St. Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines, where the top 3 employing sectors (Agriculture, Manufacturing and Trade) account for well over 50% of employment, while only contributing less than a third to GDP.

The OECS region can therefore be categorised as experiencing a high level of concentration in terms of employment opportunities. However, there is some evidence of diversification. In St. Kitts and Nevis, for example, there has been an increase in the number of new entrants in the manufacturing sector as opposed to the agricultural sector[3]. [See Figure 3.1 left.] In 1999, new entrants to the labour market registering in the manufacturing industry were 26.9% of all new entrants, the highest share since 1996 when the figure was nearly 31%. This is in contrast to new entrants in the agricultural sector, which accounted for only 6.3% of new entrants in 1999, as opposed to 1.5% in 1996, and 22.4% in 1992.

1.1.1 Gender Differences in Employment

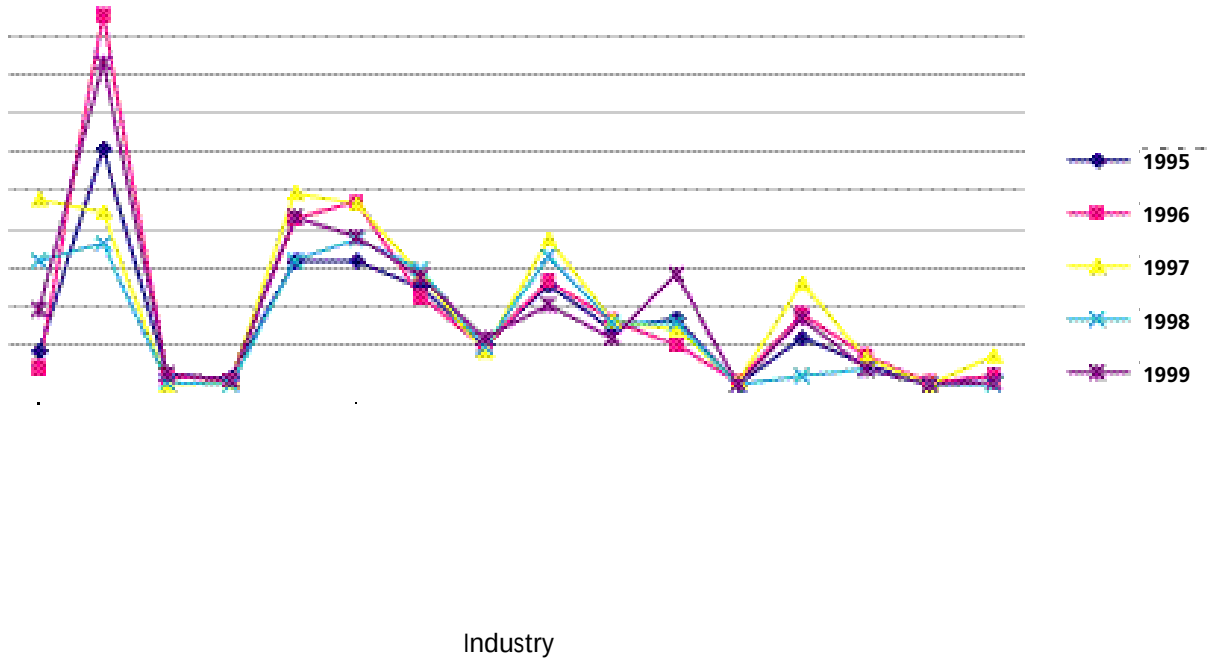
Employment by occupation and gender provides another indicator of the pattern of livelihoods within the OECS countries. [The data are presented in Appendix II

Table 3.4.]. In terms of the main occupations for the two sexes, throughout the OECS countries, about one-fifth of employed persons are at a professional/managerial level. Most are concentrated in the lower skill activities or more elementary occupational categories. Looking specifically at gender differences, female employment is mainly concentrated in wholesale/retail and the hotel/restaurant sectors where female representation is higher for every member country for which data were available. In addition to this, females dominate males in Clerical, Service and Shop Sales, and Elementary occupations.

In terms of employment among the poor, the employment of poor females is mainly in elementary occupations[4]. In Grenada 32.5% of poor females are in elementary occupations, 20.6% are in services or sales, while only 18.4% of males are in elementary occupations. The main occupation for poor males in Grenada is as craftsmen, accounting for 37.3% of poor male employment. In St. Kitts the situation is worse, where 70% of the employed poor were in basic occupations (20.5% service/sales; 17% craft; 17% elementary). In Nevis, 94% of poor household heads were in lower occupational groupings (33.3% service/sales; 27.8% craft; 11.1 % elementary).

Overall, in terms of the issues of gender, employment and human capital development, the situation as regards men and women shows a sharp contrast. A larger percentage of women are in Professional/Managerial occupations, as well as in the more elementary occupations. The former may be associated with the higher enrolment and performance rates of females at the higher levels of the educational system [See Table 3.8], while the latter may be due to the triple burden suffered by some females. One exception is

Figure 3.1
Registration of new entrants into the labour force in St. Kitts and Nevis (1995 - 1999)



Source: Government of St. Kitts & Nevis Statistical Division

St. Kitts and Nevis, where more females are Plant, Machine Operators and Assemblers than in other OECS countries due to the larger role of light manufacturing in that economy. Dominant occupations for males are in Agriculture/Fishing, Craft, and as Plant, Machine Operators and Assemblers.

With the exception of Antigua and Barbuda, female representation is higher than males in a cluster of higher-skilled occupations, namely: Legislators, Senior Officials, Managers, Professionals, Technicians, and Associated Professionals. However, at the other end of the spectrum, where on average one-fifth of employed persons are in elementary occupations, women are again dominant (with the exception of St. Kitts and Nevis). This overrepresentation at the top and bottom of the occupational scale may represent two separate trends or patterns within the socio-economic structure of the OECS countries.

Table 3.2
Contribution to total employment by sector and gender

Contribution to Employment (%) by Sector	Ant.	B.V.I.	Dom.	Gren.	Mont.	SKN*	S.T.L.	S.V.G.
Year	1999	1999	1997	1998	1991	1995	1999	1999
Agriculture/ Fishing	4.0	1.6	23.7	13.8	6.6	29.2	21.7	24.8
%Male	5.3	2.7	31.4	16.5	8.7	41.0	26.8	30.6
%Female	2.5	0.4	13.8	9.7	3.7	16.1	15.9	13.9
Manufacturing/ Mining/ Quarrying	5.7	5.3	8.8	7.6	5.6	27.1	9.3	8.7
%Male	6.6	7.1	8.6	5.8	4.4	12.3	7.2	8.4
% Female	4.6	3.5	9.0	10.2	7.3	43.5	11.7	9.2
Construction	11.4	11.5	8.4	14.8	21.8	10.6	9.0	10.8
%Male	19.6	21.8	13.8	23.6	36.9	19.0	15.7	15.9
%Female	1.8	0.6	1.3	2.0	0.9	1.2	1.4	1.2
Wholesale/ Retail	14.4	10.8	15.8	18.2	14.1	_	17.6	15.5
%Male	13.1	9.5	12.1	15.7	11.4	_	13.3	12.6
%Female	15.9	12.2	20.6	21.8	17.9	_	22.5	21.0
Hotels/ Restaurants	17.1	17.9	3.8	5.7	5.2	15.0	9.5	4.0
%Male	13.6	14.1	1.6	3.8	2.4	12.3	7.9	6.9
%Female	21.2	22.0	6.6	8.5	9.0	17.9	11.4	2.5
Banks/ Insurance/ Real Estate	5.3	9.2	5.9	3.8	5.4	10.9	4.5	4.3
%Male	4.1	8.6	4.0	2.6	3.4	7.4	3.4	3.5
% Female	6.6	9.8	7.0	5.4	8.1	14.8	5.6	5.8
Public Administration	9.3	7.7	6.0	5.4	8.6	-	13.0	6.6
%Male	8.4	9.3	7.4	6.1	7.4	-	10.3	6.9
%Female	10.3	6.1	4.0	4.4	10.3	-	16.0	6.0
Other	32.8	34.4	27.6	30.7	32.7	7.2	15.4	25.3

Source: ILO (2001)
*** Data from St. Kitts and Nevis were obtained from the Statistical Planning Unit of the Ministry of Planning for the Government of St. Kitts and Nevis**

The first of these trends appears to be the increasingly lower educational participation among males in the OECS Member States. This not only has implications for their personal employability at the high end of the occupational scale, but also for competitiveness and labour market flexibility, which may in turn help to increase the level of under-utilised resources in the OECS countries.

The second pattern, which may be identified from the available data, is the triple burden which some females suffer[5]. Many must be simultaneously involved in household management, income generation and childbearing; this may be expected to affect the time and resources they have to dedicate to increasing their employability and climb out of poverty, causing them to remain in the more elementary occupations. More investigation is required so as to determine the pervasiveness and real weight of this burden. It is however possible to draw attention to the likely implications for the under-utilisation of resources in the OECS countries, where (a) males will experience disadvantages in terms of employability due to lower education levels, and (b) the triple burden of women limits their employability despite their higher education levels. In this regard it should be noted that in some instances the labour force participation rates of females rise while that of the males decline.

1.2. Labour Market Rigidity

Labour market rigidity refers to constraints in the supply of and demand for labour that affects the efficient use of labour as a flexible factor of production. The issue of labour market rigidity is complex and multi-faceted, and includes issues such as:

- The adaptability of productive organisations
- The ability of workers to multi-task
- The strength of legal and institutional constraints on the hire/fire decision
- The ability of productive organisations to match wages to the worker's marginal contribution
- The freedom of management to respond to changes in market demand.

These issues operate at two levels, at the level internal to the organisation, and the level external to the organisation. Internal factors that affect labour rigidity include the ability of the worker to be flexible in terms of multi-tasking within the organisation as well as their ability to increase productivity. Of more relevance to the situation here are external factors, which include the freedom of movement of labour, the degree of downward wage rigidity, and the level of regulations related to the hire/fire decision. All of these factors will affect the supply of labour and the demand for labour.

Rigidity is a dominant feature of the labour market in the OECS, and may be induced from the supply as well as demand sides of the labour market. The situation in the OECS countries closely mirrors that of the Pacific Islands where rigidity is seen and attributed to several factors, such as low quality and irrelevant education. It may also perhaps be demonstrated by the prevalence of youth unemployment. Rigidity in supply relates to factors that affect the quality and the quantity of the labour available; one major problem in the OECS region is in fact described by the inadequate quality of the labour available. In terms of labour demand, factors that affect the cost of labour will affect labour demand. These include wages, salaries and imputed costs such as costly administration regulations, severance costs, minimum wages, and

low levels of productivity. These issues are discussed in detail below.

1.3. Labour Market Supply Problems

Labour market supply problems that contribute to rigidity refer mainly to the quality and quantity of labour available. In terms of the quality of the labour force, in the OECS region this can be related directly to the low level of education among the workforce (of which a variety of measures are used here to illustrate) and therefore to the insufficiency of the pool of skilled workers. This will of course lead to low employability at the individual level.

In terms of the labour supply problems, Table 3.3 demonstrates the low level of educational attainment in the OECS region, where for St. Lucia, St. Vincent and Grenada, over 65% of the adult population have only a primary level education. The anomalous results for St. Kitts and Nevis in terms of the very low percentage with primary as highest level of education and the high percentage for secondary must however be noted and investigated to assess the causal factors behind such an apparently better performance. (The absence of eleven plus examinations, thus allowing for a larger flow from primary to secondary schools, could be a contributory factor).

However, overall, this trend of low educational achievement has contributed to the continuing dominance of the mostly low-skill sectors. The low levels of training and certification, also illustrate this low level of human capital. In terms of both the quantity and quality of labour available, this situation could be ameliorated by the introduction of the free movement of workers across the OECS region, although in the short term there are likely to be adjustment difficulties

In addition to this, several other factors have been noted as affecting the rigidity of the labour market[6]. Of these, the most relevant to the OECS region is the issue of youth unemployment, which could be said to reflect slow economic growth, insufficient education and training, and a mismatch between the skills taught, and those needed in the labour market. To this may be added the growing adverse attitude to education among males in the OECS region. The youth unemployment situation is therefore an important indicator as to the health of the labour market supply chain, the educational system and the economy in general. Given the high levels of unemployment in the OECS countries, low levels of job security may also be anticipated. This is, turn will be exacerbated by the low skill character of most of the jobs available: job-specific competencies that can increase the level of leverage on the labour market or ensure the retention of employment are not easily developed. It is another vicious cycle.

The unemployment situation among the youth in the OECS region is outlined in Table 3.4. Here it is seen that in the majority of OECS Member States, youth unemployment accounts for nearly half of all unemployment, with St. Vincent and the Grenadines exhibiting the highest level of youth unemployment[7]. This, coupled with the high incidence of poverty among the youth [See chapter 6], will pose significant difficulties for achieving sustainable livelihoods among the population of the OECS in the future. Reintroducing the undereducated youth to training schemes will therefore be an important weapon in the fight against labour market rigidity and poverty. Education needs to be made attractive as a liveli-

Table 3.3
Percentage distribution of highest level of education of persons 18 years and older for selected OECS Member States

	Level of Education					
	Nursery	Primary	Secondary	Post Sec.	University	Others/N/S
St. Kitts*	0.1	18.1	51.1	7.1	4.7	19.0
St. Lucia	0.5	68.5	20.6	5.0	3.1	2.3
St. Vincent	0.0	71.0	23.6	3.2	0.9	1.2
Grenada	0.2	65.1	21.7	4.1	1.5	7.4

Sources: CDB Country Poverty Survey- Caribbean Development Bank 2001. Vol. II(a); St. Kitts Source: Kairi Consultants (1999).

Table 3.4
Youth unemployment in the OECS Region

Country	Unemployment by Age Group (%)				
	15-19	20-24	25+	OECS Rank*	Total Unemployed
Anguilla	28.57	-	-	-	560
Antigua & Barbuda	21.91	28.27	49.82	4	1784
Dominica	18.01	21.50	60.49	1	7720
Grenada	23.30	25.67	51.03	2	6228
St. Kitts & Nevis	27.95	24.49	47.56	5	823
St. Lucia	25.09	24.86	50.05	3	15545
St. Vincent & the Grenadines	29.87	25.52	45.59	6	8238

Sources: Anguilla (Anguilla Labour Force Survey, 1999); Antigua (Antigua Census, 1991); Dominica (Dominica Labour Force Survey, 1997 (see ILO, 2001), Grenada (Grenada Labour Force Survey, 1998); St. Kitts and Nevis (St. Kitts & Nevis Census, 1991); St. Lucia (Labour Force Survey, 1998 (see ILO. 2001)); St. Vincent and the Grenadines (St. Vincent and the Grenadines Census, 1991).
***= Rank of Unemployment among the youth (15-24 years old)**
NB: Rank 1 = the lowest level of youth unemployment.
Note: Additional age ranges for Anguilla were not utilised due to inconsistency with other OECS countries.

hood strategy for the youth of the OECS region. The type of education needs to be determined by unilateral or multilateral government policies that adopt a human resources development strategy that is in line with a strategic industrial policy. This is in order to ameliorate the demands of the labour market to the skills nurtured in the educational system.

1.4. Labour Market Demand: Rigidities in the Market

Other indicators of the rigidity in the labour market include the factors that affect labour demand. Two of these are labour costs, and the level of contractual flexibility. A framework that can reduce labour costs and increase the demand for labour is needed: such a framework should be one in which wages are flexible, and labour transaction costs as well as other imputed labour costs (absenteeism, non-working days, and imputed compensations) are reduced.[8] This may require changes in the law in countries where the Member States have enacted laws that may have contributed to labour market rigidity on the demand-side.

For example, in terms of imputed costs to the employer, St. Kitts and Nevis have enacted regulations that add to the administrative burden by requiring explic-

it terms and conditions of employment for every employee.[9] The extent to which these kinds of administrative and bureaucratic requirements do indeed constrain labour demand across the OECS region needs to be determined. Many of the OECS Member States have also enacted minimum wage legislation. The merits of this kind of legislation continue to be debated in academic as well as policy-making circles[10]. In the OECS region there needs to be closer scrutiny of the possible contribution to labour market rigidity by constraining the option of lowering wage levels in the event of a downturn in demand or other economic difficulties.

In addition to this, the opportunities for females are also constrained in terms of their representation in the economy, and the rewards being offered for their employment. As will be discussed later there is some evidence that the occupational and income status and advance of females may not match their educational attainment. Lack of representation and serious wage differential may be expected to severely constrain females opportunities for securing successful livelihoods.

In the context of contractual flexibility, this can be constrained by certain institutional arrangements, including the strong role of unions in the OECS region in general, and the use of centralised bargaining agreements. Unions with 'extraordinary bargaining power' may be a severe hindrance to wage flexibility, especially with approximately 27% of the labour force unionised in the countries of the OECS[11]. Here again, this could act as a constraint for firms as it precludes the option of downward wage offers as a response to economic difficulties. Restrictions on different forms of contractual mode (temporary, fixed term, and part-time contracts) constrain firms in the same manner. The issue merits further investigation, and in particular, the possible effects of the removal of some of the current restrictions needs to be examined. For example, possible benefits for the employment of youth need to be weighed against other negative consequences that may arise. In this regard, for St. Kitts and Nevis, there is low unemployment among poor youth[12], indicating a high proportion of working poor. This may have a link to the variety of options available to the employer with regards to responding to decreases in demand. This situation could be examined for lessons that could be learned with regard to the role of flexibility and its effect on the number of working poor.

Another problem relates to downward wage rigidity; this describes the difficulty in reducing wages in response to changes in market conditions, with likely consequences for a lack of flexibility in production planning.

The presence of institutional factors or behavioural factors that make wage cuts difficult will both cause downward wage rigidity. Institutional factors include such regulations as a minimum wage, while behavioural factors will include the perception that wage cuts are 'unfair'. The OECS region may then not only be experiencing downward wage rigidity due to the implementation of minimum wages, but also to behaviours that are influenced by the prevalence of wage inflation, where workers have become accustomed to wage increases over and above the rate of inflation. This is especially seen in the OECS countries with public sector wages, increasing between 1% (St. Lucia) and 10% (St. Kitts and Nevis) for most public servants[13]. The average public sector wage increase for the OECS region was 4.7%. The private sector also experienced wage increases of between 3%

and 15% in the financial year 2000-2001. This was despite moderate inflation in the OECS region of 2.2%, ranging from 0.2% in St. Lucia to 6.5% in Anguilla.

The issue of downward wage rigidity is a serious one, as producers become constrained in altering wage costs in response to downward shifts in demand or adverse economic circumstance, introducing another element of rigidity into the labour market and the economy in general. In terms of the direct role that Governments may have in wage determination, this can lead to a reduction in employment opportunities available, if wages are set at a level that exceeds the workers' marginal contribution; so much so that it has been recommended[14] that Government's role should be restricted to:

- Protecting workers' rights
- Protecting the vulnerable with a minimum working age
- Equality of opportunities
- Minimum appropriate working conditions
- Income security (social security and unemployment insurance)

Overall, the important indicators of labour market rigidity are the prevalence of youth unemployment, the availability of skilled workers, level and relevance of education, labour costs, contractual flexibility and the role of trade unions. These are areas for which a consistent data gathering framework needs to be implemented so that analysis and strategic planning can be better facilitated. Unfortunately data gathering capacity in the OECS region has been severely lacking in this and many other areas. Adopting Rama's [1995] definition and construction of a Labour Market Rigidity Index may however facilitate some preliminary assessments. This Index incorporated three variables. These are: a) Social Security contributions to demonstrate a factor that contributes to the cost of using labour; b) the number of ILO conventions ratified and implemented, as these may help to measure the extent of the regulations in the labour market that could affect the demand for labour; and c) the level of public sector employment, as a high level/proportion could distort the labour market. In Table 3.5, the ranking produced by the construction of this index is shown, and there it will be seen that St. Kitts and Nevis has been rated the most rigid of the OECS Member States. It also has the second highest ranking in terms of overall youth unemployment. Note, however, that, although St. Kitts and Nevis is considered here as the most rigid in the OECS, it is still more flexible than its CARICOM neighbour Barbados.

This really underscores the need to better understand and map the precise relationships between possible institutional rigidities, labour market inflexibilities, poverty and the youth in the Caribbean. This would also assist the determination of the Government's role in wage determination and increasing the cost of labour.

While there is a serious concern as to the lack of flexibility in the labour market in the OECS region, a very important caveat needs to be noted. Although flexibility in the labour market can be increased through deregulation, with the attached benefits of increased output, employment, and dynamism, it can also however lead to workers being disadvantaged and to an increase in poverty. Reform and adaptation must avoid any reversal of hard won labour rights. Although regulation may contribute to rigidity in the labour market, unregulated labour markets cannot be considered as welfare improving. Given the importance

Table 3.5
Labour market rigidity indicators in the OECS countries

Country	ILO Conventions Ratified	Social Security Contribution (wage %)	Government Employment (labour force %)	Unionisation (labour force %)	Labour Market Rigidity Index	OECS Rank
Antigua & Barbuda	15	10.6	26.5	24	0.380	5
Dominica	20	8.9	21.3	25	0.223	1
Grenada	25	8.0	25.9	47	0.328	4
St. Kitts & Nevis	8	10.5	29.7	34	0.476	6
St. Lucia	25	10.0	8.7	20	0.306	3
SVG	16	7.8	20.7	12	0.251	2
Barbados*	35	12.0	23.0	31	0.580	-

Source: Adapted from Rama (1995)
NB: Rank 1 = least rigidity.
***Included for comparison purposes**

IT IS IMPORTANT THAT THE RIGHTS OF WORKERS ARE BALANCED WITH THE SEARCH FOR EFFICIENCY IN PRODUCTION

of striking the right balance and advancing the economic and human development processes, the critical importance of having consistent and in-depth data available to the policy-making establishment is very clear. Government decision-makers and other stakeholders must be made aware of any unintended rigidities that could arise from policy application.

The exact situation in the OECS region, as regards labour market rigidity, is difficult to ascertain due to a lack of consistent and readily available information, and this difficulty will in itself have implications for informing policy-makers as to the consequences of their actions.

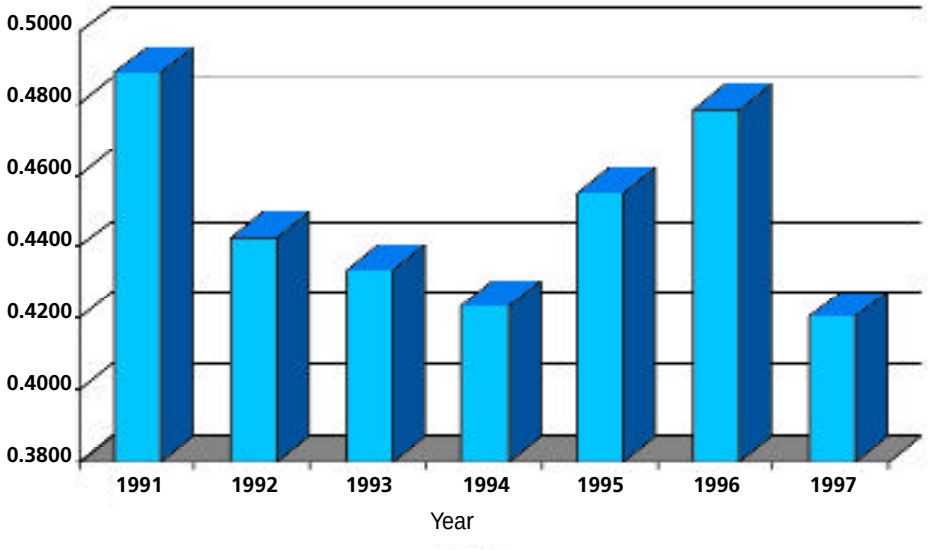
This delicate balance is directly related to inequality, where it is more pronounced in the OECS region (Gini coefficients over 0.40) than in the USA and Europe, where Gini coefficients are less than 0.40[15] but higher in the USA than in Europe. This may be indicative of labour market structures in these two countries where the USA's labour market is more flexible than that of Europe, and where links between poverty and labour market deregulation have been made[16]. This is an important policy issue that leads to an important warning: deregulation needs to be cognisant of the implications it can have for increasing poverty and inequality, while paradoxically increasing employment.

In the OECS countries, income inequality has been high and volatile. However, as seen in the case of St. Kitts and Nevis, inequalities appear to be reducing (see figure 3.2.) if the Gini coefficient is considered an accurate measure of inequality[17]. In actuality, this may not be the case as there is still a large number of working poor in St. Kitts and Nevis, and there is a serious gap between male and female wages (see Box 3.1). This is not an area that is included in the Gini coefficient. Overall the Gini coefficient fell from 0.49 in 1991 to 0.42 in 1994, followed by increases in 1995 and 1996. However, by 2000, the Gini coefficient for St. Kitts and Nevis was as low as 0.40.

Poverty, gender and human capital deficiency

Despite the assumption and/or expectation that economic growth will alleviate poverty, in terms of GDP and per capita income, this has not been the case in the OECS region. The OECS Member States have experienced growth in GDP and per

Figure 3.2
The Gini coefficient St. Kitts and Nevis



Source: St. Kitts and Nevis Statistical Review 2000, National Statistical Office, St. Kitts and Nevis

capita income while at the same time observing increases in poverty. These high poverty levels have been considered as reflective of the low level of human capital in the region[18]. More detailed examination of the relationships between poverty, educational attainment, and labour market status have shown that unemployment is very high among low-skilled elementary and craft occupations, that the poor lack education and, among the unemployed, a high percentage have only completed primary education [See also Chaps. 4 & 6]. The difficulties in developing flexible labour markets are therefore further complicated by the fact that the poor and the unemployed are more likely to have lower educational levels (See Tables 3.6 and 3.7).

The educational attainment of the poor, as demonstrated in Table 3.6, shows that St. Kitts experience a relatively better position than the other three countries for which data are available. This is where nearly 51% of the poor had completed secondary education, as opposed to an average of 18.5% for the other three islands. However, St. Kitts also experiences a high proportion of working poor, suggesting some sort of imbalance as regards reward for work, as well as a relationship between education and employability. Perhaps the relatively higher educational achievement in St. Kitts and Nevis has increased the employability of the poor, but it has however not been sufficient to enable them to climb out of poverty.

The inadequacy of the match between training and actual labour market demand has already been noted. Later in this report, the extent to which poor youth comprise a large percentage of the unemployed in most Member States; and the increasing number of working poor will be described. The vicious cycle of low education levels, low employability and its consequential entrenchment in poverty is therefore very real, and must be reversed.

This is not just an issue of education, nor of an inflexible labour market. Where there is no (or limited) labour demand, the education system can do nothing to match it. The Governments of the OECS therefore need to continue to

Table 3.6
Poverty and education levels

	St. Kitts		St. Lucia		St. Vincent		Grenada	
Education Level	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor
Nursery	0.0	0.1	1.6	0.6	0.0	0.0	0.2	0.2
Primary	12.5	17.6	75.0	67.6	77.9	66.2	71.4	62.9
Secondary	50.7	47.4	17.7	21.2	19.9	25.3	18.0	23.2
Post Secondary	3.1	7.5	3.6	5.0	1.1	4.1	4.1	4.2
University	1.1	5.2	0.5	3.3	0.3	1.2	0.7	1.8
Other	16.3	15.9	1.6	2.2	0.3	1.2	0.2	2.1
Not Stated	16.3	6.2	0.0	0.0	0.6	0.1	5.5	6.0
TOTAL	100	100	100	100	100	100	100	100

Source: CDB Poverty Surveys- Caribbean Development Bank 2001, Vol II(a)

adopt industrial and investment policies that can attract stable and embedded investment in the member states. Without a strategy that seeks to be proactive in attracting investment that demands and develops human skills and technological, entrepreneurial and managerial capabilities, the achievement of competitiveness in this era of globalisation may be an elusive goal.

2.1. Gender

Within the Caribbean region where poverty assessments have been carried out, gender has not been found to have a significant association with poverty. Nevertheless, there are interesting within-country and within-group variations which do have implications for possible differences in human resource utilisation. Amongst the poor, unemployment by gender varied considerably across the Member States. In St. Lucia the unemployment rate for the poor was 27% for females and 24.3% for males. The corresponding figure for the richest quintile was 15% and 8.9% for females and males respectively. The corresponding figures for St. Kitts (with similar findings in Nevis) was that virtually no poor males were unemployed, while 9.1% of poor females were unemployed. For St. Vincent and the Grenadines female unemployment among the poor stood at 5.9% while males had a higher rate of 17.6%. The richest cohort had an unemployment rate of 3.2%.

The peculiar situation where females have higher educational attainment levels, and dominate both the upper and lower echelons of the socio-economic hierarchy, even while they have higher unemployment levels, and may be over-represented in the group falling below the

Table 3.7
Unemployment and education levels

	BVI	Dominica	St. Lucia	St. Vincent
Year	**1991**	**1997**	**1999**	**1991**
% of Employed with only primary education	**36.0%**	**67.9%**	**46.5%**	**69.1%**
% of Unemployment with only primary education	**40.6%**	**73.6%**	**45.6%**	**74.8%**

Source: ILO (2001)

poverty line has already been described. All of this could raise questions about possible gender differences in socio-economic mobility patterns, and/or in economic resources management, and/or in actual use of education and training. With regard to the last-mentioned possibility, there has been the suggestion that males have been better able to achieve socio-economic mobility with lower levels of educational attainment when compared with females. At the present time there are no hard data to support any of these possible explanations for the OECS as a region. It is clear that here again there needs to be a better understanding of the actual realities and the implications they may have for the efficiency and effectiveness of human resource utilisation. This is especially the case in St. Kitts and Nevis and Nevis (as demonstrated in Box 3.1) where women are participating more in the education system, have attained a greater representation in the Professional and Managerial occupations, but are nonetheless seeing their opportunities for monetary advancement, in terms of wages, curtailed at a much earlier age than males (see Box 3.1, Figure 3.3). As indicated in the data available, females' wages as a percentage of male wages decline across the age range, reaching a plateau between the ages of 45 and 49. On the other hand, male wages continue to increase up to the age of 54[19]. In addition to suffering from these wage differentials (in some cases female wages are only 61% of male wages), they are also severely under-represented in power and decision-making positions within the legislative and judicial domains[20]. Thus, although females are participating in educational/training activities to a greater degree, where there is a definite trend towards increasing female enrolment and declining male enrolment[21], this would not appear to be translated into increased wages or power/political representation.[22] The questions that must therefore be asked are: (1) was wage gap and low productivity related to systemic gender inequality or to the relevance of education to labour market demand, and (2) what impact this might have on the fostering of the leadership qualities needed for sustainable development.

2.2. Human Capital Deficiency

The issues raised here are not just educational issues; they can have severe consequences for the flexibility of the labour market and the type of developmental path these economies will be able to follow. These issues also have implications for individual human development in

Table 3.8

Sex disaggregation of enrolment (2000) – selected countries

	Country	Primary		Secondary		Tertiary	
		Males	Females	Males	Females	Males	Females
Leeward	Antigua	52.1	47.9	49.6	50.4	-	-
	St. Kitts	52.3	47.7	49.1	50.9	-	-
Windward	Dominica	52.9	47.1	43.6	56.4	40.0	60.0
	Grenada	53.1	46.9	41.4	58.6	44.1	55.9
	St. Lucia	51.7	48.3	42.8	57.2	16.6	83.4
	St. Vincent	52.8	47.2	42.6	57.4	38.5	61.5

Source: Caribbean Development Bank 2001, Vol II(a)

terms of the employability of the individual and the scope of their opportunities to secure livelihood opportunities.

The trend of low educational achievement is seen across the member states. More specifically, the poor are disadvantaged in expanding their human capital as they joined the labour force earlier and were therefore less likely to complete their schooling. This has crucial consequences for individual employability and labour market rigidity, especially on the supply-side. As an example, the labour force participation rate for the 15-19 age group is 16.1% among the poor in St. Kitts[23]. The corresponding figure for the non-poor is 6.4%. The higher labour force participation rate among the poor illustrates the problem of low returns for effort and reinforces the argument that this is a major stumbling block for the OECS countries as it relates to the low level of the human capital available[24].

In the absence of other and more robust indicators, such as details on vocational qualifications attained for the OECS region, or the gap between skills demanded and skills available, youth unemployment has been used here to proxy the relevance of the system. In terms of employment and unemployment among poor youth, the situation varies.

Box 3.1
Female Representation in St. Kitts and Nevis

On the matter of female representation in the society and economy in St. Kitts-Nevis, at least five important features have been brought to the forefront by recent data from St. Kitts and Nevis. The first two are that:

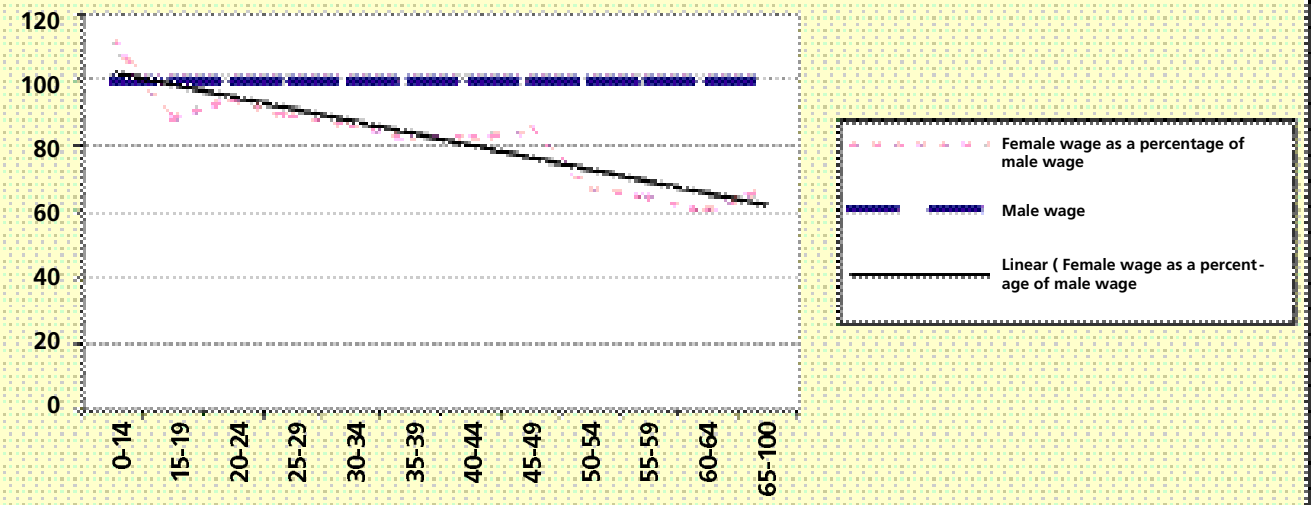
1. Females do have a greater share of enrolment in both formal and non-formal education and training;
2. Greater proportions of females than males are in Professional and Managerial Occupations.

But, the other two are that

3. The gap between male and female wages is significant. In some instances, the female wage is as little as 61% of the male wage;
4. The gap between male and female wages also increases with age; and
5. Although there has been a slight decrease in recent years (from 19% in 1998 to 15% in 1999) females continue to be severely under-represented in power/political positions, where males constitute over 85% of parliamentary representatives.

Figure 3.3
Female Representation in St. Kitts and Nevis

Figure 3.4
Female wages as a % of male average wage by age group



Sources: Non-Formal Training- Government of St. Kitts and Nevis Statistics Division (2000); Tertiary Education- UWI Statistical Booklet (2000); Professional Managerial- ILO (2001); Wages- St. Kitts and Nevis Social Security Board (2000); Parliamentary Representation- UNECLAC (1999)

In Nevis, due to a higher propensity to seek employment, 28% of the 15-19 age group are employed[25]. The figure for the non-poor is 16.9%. On the other hand, the situation in Grenada is different, where unemployment is higher among the poor youth than the non-poor, 13.4% versus 8%[26]. The issue of poor youth unemployment is therefore a serious one as it has implications for the flexibility of the labour market in terms of the generation of appropriate skills now and in the foreseeable future.

Another possible indicator of a skill shortage, or of the relevance of the educational system to actual labour demand, is the number of work permits issued. The number of work permits issued by occupation is shown in table 3.7. in the Appendix**.** There it will be seen that for Anguilla, Antigua and Barbuda, and the British Virgin Islands, Agricultural Workers and Production, Construction and Transport Workers take up the bulk of work permits granted in those countries, indicating a lack of technical skills in these islands. The opposite is true for the rest of the islands where the bulk of their work permits are issued in Professional/Managerial occupations, indicating a lack of professional skills. Overall, this suggests that in these countries there is a severe shortage of skilled workers. These skill shortages will not only affect the current status of these economies in terms of productivity (lack of ability to make productive use of their resources), but must also affect the future development path of these nations as it will have consequences for future investment decisions made by indigenous and foreign businesses.

3. Resilience in the OECS Region

The level of resilience in the OECS region is low. Although the nations are limited in respect of what can be done to cope with natural disasters, they can, however, attempt to increase the resilience in the social and economic spheres.

The main economic indicators used in this

report (and explained in Chapter 2) to assess resilience include:

- GDP per capita
- Gross International Reserves
- Economic diversification

There are a number of more specific factors that need to be investigated as these may be expected to contribute directly to increasing economic diversification. These include:

- Resource capability in terms of human capital, especially in relation to women and the youth
- Flexibility and dynamism in production and the labour market
- Exposure in terms of economic issues

3.1 Resource Capability

Resource capability has been noted to be important in aiding increases in resilience. The main thrust of the discussion in this chapter has been that human capital capability of the OECS Member States is severely limited – with serious consequences for high levels of unemployment, and poverty. In this regard, St. Vincent and the Grenadines appears to be in the most precarious position in respect of the resilience level, as they lack the human resources to build resilience and reduce vulnerability, with 69.1% of the employed and 74.8% of the unemployed having only achieved primary level education. This situation is borne out in Table 3.9 (extracted from Table 2.4. Chapter 2), which shows the index of resilience constructed from a selection of components: St. Vincent and the Grenadines has been ranked as the least resilient. Human resource development, expanding the human capital base, is therefore a matter that needs urgent attention, as it will have implications for increasing demand for quality labour.

3.2. Flexibility

Flexibility, as used in the context here, mainly refers to flexibility in the productive sectors of the economy. In the main, these issues will be related to increasing innovation in production, the freedom of movement of labour, the reduction in downward wage rigidity, and a parsimonious relationship between workers' rights and the level of regulations related to the hire/fire decision. If these factors can be facilitated, the wealth generating potential of the populations of the OECS Member States may be released.

Flexibility is a factor that should be considered important in increasing resilience in the OECS region; it should refer to flexibility in production, directly relating to labour and the production process. Flexibility in production can be achieved through the development of a workforce that can rapidly adapt to changes and trends in the market place, which will be related directly to the ability of the workforce. The main concern here is flexibility in the labour market. Without reducing the cost of using labour, labour demand will not increase to a substantial degree. Without increasing the quality of the supply of labour, resilience and, therefore, sustainability cannot be achieved.

Innovative and equitable ways need to be found to help reduce labour costs in the OECS region. By lowering the costs of working, Governments can increase the employment opportunities of their citizens. Burdensome administration procedures and downward wage rigidity, as well as policies that do not encourage increases in productivity can present both institutional and behavioural obstacles. The barrier that some severance payment

Table 3.9
Index of resilience and selected components

(1) Country	(2) Average Percentage of Candidates Passing English A 1995-1997 (Rank 1= worst performance)	(3) Percentage of Candidates Passing Maths 1995-1997 (Rank 1= worst performance)	(4) Index of Nos. of Persons Unemployed Under 25 yrs. (Rank 1= worst performance)	(5) Resilience Index	(5) OECS Rank (Rank 1=best performance)
Dominica	49.4 (3)	34.8 (4)	0.845 (5)	0.358	2
St. Lucia	46.6 (2)	35.0 (5)	0.290(1)	0.329	4
Grenada	35.5 (1)	31.4 (2)	0.342 (2)	0.287	6
St. Vincent	51.4 (5)	33.8 (3)	-	0.276	7
St. Kitts & Nevis	51.2 (4)	36.7 (6)	-	0.350	3
Antigua-Barbuda	56.0 (6)	31.1 (1)	0.414 (3)	0.300	5
BVI	65.9 (7)	51.0 (7)	0.782 (4)	0.491	1
USA	-	-	0.953	0.627	
MIC	-	-	0.847	0.691	

MIC- Middle Income Countries.
Lower is index worse is performance.
(2) & (3) See Tables 4.10 (a) and (b) for English A and Maths Results by Country

schemes can place in the way of greater employment has been described for some countries[27]. The benefits and disadvantages of different attempts to balance the likely choices and to resolve these kinds of difficulties need to be better and more dispassionately examined. In some countries a Worker Capitalisation Fund has been proposed as a solution to this problem, where the employer makes a contribution to the fund in the worker's name (3% to 4% of their salary), which is accessible by the worker on termination. This approach has been seen to increase employment by 2% to 3% in Latin America[28]. Caribbean countries need to more closely examine these kinds of experiences for lessons that could be usefully applied within the region.

In terms of labour market competitiveness, this will undoubtedly be increased with the introduction of free movement of persons within the OECS region. It must however be noted that this will have consequences in the short- to medium-term as markets adjust towards a more efficient allocation of resources. The freedom of movement of the labour force will provide businesses with a larger labour force from which to recruit workers and provide workers with a wider sphere in which to ply their trade. There may be short-term difficulties having to do with a possible unidirectional movement of workers or businesses towards more prosperous locations. However, in the longer term it would be expected that the economies of the OECS would achieve a more efficient allocation of productive resources as core competencies develop within each individual economy. In this regard, by increasing the competitiveness of the labour market through increasing the sources of both supply and demand for labour, labour market rigidity can be reduced through the parallel implementation of policies that facilitate freedom of movement of both labour and capital. This will relate to policies that concern transfer and convergence of welfare benefits, the transfer of remittances, mutual recognition of workers between Member States, and the harmonisation of technical standards and procedures.

3.3 Exposure

It is clear and widely referenced that the OECS Member States suffer a high level of economic and environmental exposure. It has also been suggested that the Eastern Caribbean States are the most economically vulnerable in the world[29]. This has been defined in terms of accessibility, export concentration, convergence of export destination, dependence on imported energy, external finance and capital. The background for the construction of the various indices is outlined in Chapter 2. Table 3.10 shows that St. Kitts-Nevis is in the most precarious position as regards the issue of exposure, closely followed by Antigua and Barbuda. Respectively this is due to an over-concentration on light manufacturing exports and a dependence on external finance and capital. Overall, St. Lucia and St. Vincent also rank low in terms of resilience and exposure. The relatively better situation in Grenada and Dominica is mostly due to a greater level of diversification in terms of exports for Grenada, as noted previously, and a low level of concentration in sectoral contributions to GDP for Dominica. The lesson to be learnt from this overexposure is that countries so overly exposed must strive for greater diversification.

4. Conclusion: Achieving Competitiveness in the OECS Region

The OECS Member States find themselves in a difficult situation. In order for these nations to survive on the international market, they have had to concentrate resources in a few areas - be it bananas in Dominica or sugar in St. Kitts and Nevis. However, difficulties are still encountered. This is despite the presence of preferential agreements between the OECS members and the European Union, the USA and CARICOM.

The OECS region is dependent on primary commodities for export, the most stagnant sector in terms of world trade[30]. The most dynamic sectors are science-intensive goods, and knowledge intensive goods and services. However, these nations have adopted a passive approach to achieving competitiveness by attempting to offer lower production costs and higher returns to foreign investors by supplying tax holidays and a liberalised economic environment, seen especially in Antigua and Barbuda. Although this approach has yielded growth in these nations over the past few years, it is obvious that there are still severe structural problems in the societies of these countries that need to be overcome if sustainability is to be achieved in the longer term. At least a more dynamic approach is being seen with the OECS and CARICOM attempting to afford the Caribbean a better position at the international negotiating table.

In the short run there are several immediate actions that will need to be taken, not least of which is the provision of a robust and consistent data-gathering framework for all Member States. Apart from this, there are several other immediate issues that need to be addressed. These issues relate to encouraging diversification in the OECS region; increasing their resource capability; increasing flexibility; and reducing the level of exposure.

In order to achieve these aims, Governments will need to put in place an institutional framework that allows these aims to be achieved. The use of incentives to encourage farmers to grow non-traditional crops, encouraging the private sector to assist in human capital development, and the search for entrepreneurial opportunities are three such approaches. Human

Table 3.10
Index of Resilience, Exposure and Selected Components

	Index of Top 3 Sectors as % GDP (rank)	Index of Top 3 Exports as % of Total Exports (rank)	Index of Exposure to Foreign Economic Conditions (rank)	Exposure Index (rank)	Resilience Index (rank)
Dominica	0.301 (6)	0.152 (1)	0.439 (3)	0.075 (4)	0.358 (6)
St. Lucia	0.530 (1)	0.217 (2)	0.499 (5)	0.078 (3)	0.329 (4)
Grenada	0.432 (2)	0.611 (4)	0.463 (4)	0.015 (6)	0.287 (2)
St. Vincent	0.344 (5)	0.480 (3)	0.432 (2)	0.064 (5)	0.276 (1)
St. Kitts & Nevis	0.362 (4)	-	0.266 (1)	0.112 (1)	0.350 (5)
Ant. / Barbuda	0.399 (3)	-	0.560 (6)	0.081 (2)	0.300 (3)
BVI	-	-	0.972 (7)	-	0.491 (7)
USA	0.196	-	-	-	0.627
MIC	-	-	-	-	0.691

MIC- Middle Income Countries
Note: Rank 1= high concentration/ high exposure/ low resilience
Source: extracted from tables 2.4, 2.5 and 2.6, chapter 2

capital development, flexibility in production and diversification will all assist in reducing these nations' exposure. In other words, proactive development policies must take into account planning on other fronts such as education and the labour market. Building the human resource base must pay particular attention to ensuring a better match between industrial and national development policies and the skills being taught. As with the issues of poverty, gender, skills and unemployment, these issues are not mutually exclusive.

Introducing a higher level of flexibility and dynamism in production and marketing through a strong private sector, flexible labour markets and an effective entrepreneurial environment is required. This can be achieved by the promotion/facilitation of new enterprise development, a prudent relaxation in labour market regulations and an education/training infrastructure that is relevant to the future strategic direction of the OECS as a region.

Governments need to take the issue of globalisation in the context of their nation and the surrounding contingent environments and establish the manner in which they will diversify their economies and outline the specific core competencies that will be required. Only through strategic planning of this manner will these nation states be able to secure the opportunities that are available to them.

Although the OECS Member States can do little about the level of vulnerability they suffer in relation to environmental hazards, they can however attempt to reduce the consequences of that vulnerability and exposure. Three major issues that therefore confront the OECS Member States if secure livelihoods are to be achieved are 1) how to increase diversification in the economy; 2) how to provide a human resource environment where skills are matched to demand; and 3) how to ensure gender equality in relation to males' educational underachievement and females' unequal returns for work and a lack of power/political representation. Accompanying this is the need to

ADOPTING AN EDUCATION PLAN WITH NO REFERENCE TO THE LIKELY DIRECTION OF THE PRODUCTIVE SECTORS WILL NOT ACHIEVE SUSTAINABLE LIVELIHOODS

develop the human resource base by the attraction of economic activity that not only provides employment, but also increases the core competencies of the labour force and the structural environment. Some Member States have managed to develop some form of core competencies in agriculture (Grenada) and offshore financial services (Antigua and Barbuda). However, this has led to a concentration and reliance on a few sectors from which to secure livelihoods.

Although this concentration has assisted these nations in achieving modest growth, it has contributed little to increasing resilience, as they are still very vulnerable to external threats. Of greatest concern here is that the OECS Member States have been experiencing relatively stable growth while increases in poverty are still being observed. This, together with the issues related to the labour market structure, and human capital development raise serious questions about the longer-term sustainability of the development process. This is especially true in relation to the dualistic role played by women, where dominance in Education and Professional Management occupations is clearly seen alongside severe disparity in wages and power/political positions between the sexes. Overall economic concentration, dependence and a lack of relevant livelihood opportunities are all impeding a development path that will allow future generations to be competitive, and secure opportunities for secure and sustainable livelihoods.

St. Lucia's Poverty Reduction Fund

The Poverty Reduction Fund (PRF) continues to be one of the centerpieces of Government of St. Lucia's strategy to combat poverty. This institution was established in 1998, with the main objective to improve the quality of life among the poor in disadvantaged communities through the financing of small-scale projects identified and implemented with a high degree of community participation. The approach being adopted seeks to empower communities and allow for foster decision-making that will have a positive impact on the quality of life of its members. The PRF is funded from Government of St. Lucia resources, a Loan/Credit from the World Bank, and the EU's Stabex and Special Framework of Assistance (SFA) resources.

Over the last four years, the PRF has invested approximately EC$6.3 million in disadvantaged communities in areas such as economic infrastructure (footpaths, drains etc.); social infrastructure (community facilities, daycare centers, education facilities, sports facilities); productive activities (income generation); water supply. In addition, the PRF provides housing assistance to community members in special circumstances (fire, inhumane housing conditions, etc) and social assistance to specific vulnerable/marginalized groups.

Through its capacity building and community empowerment programme, the PRF seeks to enhance community capacity to manage development initiatives as well as address social problems in these communities. Some of the initiatives undertaken include, maintenance programmes among teachers, students and parents; skills training for youth; conflict resolution seminars; facilities management workshops; waste water management workshops; and remedial programmes for slow learners.

The PRF operates on a demand driven approach, and to date it has facilitated the implementation of approximately 100 projects. These projects have been evenly spread in targeted communities of the 17 constituencies over the entire island. Over 500 proposals/requests are under consideration, reflecting the demand for the allocation of resources to address poverty.

The PRF is also a channel for SFA funds under the EU programme of assistance for the Social Recovery Programme. This funding stream is earmarked for the implementation of the Rural Employment. Programme in targeted communities in banana growing areas that have been marginalized as a result of the ongoing restructuring of the banana industry. Project activities focus on social and economic infrastructural needs, capacity building and community empowerment.

In order to ensure more effective responses to the needs of poor communities, and more efficient operations, the PRF has strengthened institutional capacity through the creation of several positions in the organization. These include the following:

1. A Deputy Executive Director;
2. A Community Participation and Training Specialist, heading the Community Section.;
3. Two Community Officers who would provide Rapid Assessments and Appraisals of communities, assist in targeting the poorest of the poor, mobilize communities, facilitate capacity building initiatives for Community-Based Organizations, and facilitate greater community management of resources;
4. An Information Systems Officer to manage and maintain the network and MIS;
5. A Chief Technical Officer heading the Technical Section, and one additional Technical Officer.

Endnotes

1 See Country Poverty Assesments

2 The data is somewhat inconsistent due to differences in year of survey.

3 Statistical Division, Government of St. Kitts and Nevis (2001)

4 Country Poverty Assessments, Kairi Consultants, various years

5 UNDP (1997b)

6 UNDP (1997b)

6 It must however be noted that due to data constraints and the different data collection periods, meaningful interpretation is hampered

8 World Bank (1996)

7 Another example of possible administrative burden is the requirement that for the termination of ten or more employees, the employer must notify and satisfy the Labour Commissioner that the terminations are justified.

10 Levin-Waldman (1998)

8 Rama (1995)

12 Kairi Consultants (1997)

13 ECCB (2001)

14 World Bank (1996)

15 Thomas (1999)

9 Papadimitriou (1999)

10 Statistical Division, Government of St. Kitts and Nevis (2001)

18 Downes *et al* (1999)

11 Statistical Division, Government of St. Kitts and Nevis (2001)

12 UNECLAC (1999)

13 Statistical Division, Government of St. Kitts and Nevis (2001)

14 UNECLAC (1999)

15 Kairi Consultants (1999)

16 Caribbean Development Bank (2000)

17 Kairi Consultants (1999)

18 Kairi Consultants (1998)

27 World Bank (1996)

19 World Bank (1996)

29 Crowards and Coulter (1998; 1999)

30 Girvan (1997)

CHAPTER FOUR

Education and human resource development in the OECS: Implications for resilience and sustainability

ENLARGING PEOPLE'S CHOICES CAN ONLY BE REALISED THROUGH ADEQUATE AND APPROPRIATE EDUCATION

1. Introduction: Education and Development

Human resource development and investment in education are critical and necessary ingredients of economic and social growth. It is widely believed that education increases productivity, creates a higher standard of living, and generates a better quality of life. Education has therefore come to be seen as a cornerstone of development, a principal pathway to prosperity, and a mechanism for building individual capacity and empowerment. It is expected to effectively lead to the reduction of social and economic marginalization and exclusion, particularly where equity, efficiency, relevance and quality are assured by the education system.

The increased recognition that in most of the developing world poverty levels exist at unacceptably high levels, and that national and global development must necessarily focus greater attention on poverty eradication (or at least its reduction) has helped to give even more centrality and urgency to this perspective. Thus for example, it has been noted that if the vicious circle of poverty is to be broken, "the primary aim of education systems must be to make children from marginal or disadvantaged backgrounds less socially vulnerable". More generally, people must seek education to develop capabilities to create and win opportunities, and thus empower themselves. Enlarging people's choices – a concept that is central to the UNDP's concept of human development - can only be realized through adequate and appropriate education that includes technical and vocational skills training and the development and harnessing of creative abilities and potentials.

This approach to education builds on arguments long advanced by human capital theory: this is, that investment in education will increase labour productivity and ultimately raise individuals' capacities to earn higher incomes and thus increase wealth. National wealth determines a society's capacity to invest in education; at the same time, the acceleration of development may be severely thwarted by inadequate knowledge and skills in

production and exchange. Advancement in knowledge, and the diffusion of new ideas in society have therefore come to be seen as some of the most decisive interventions for social and economic progress. These are the factors on which dominant countries have developed the greatest advantage. Within this framework human capital will be an asset critical to development and welfare, allowing for higher level participation in economic, social and political activity. Opportunities for high income and increased productivity increase with higher education and higher quality education. More specifically, it may be argued that "secondary education - provides the most social and human resource basis for changing production patterns and social equity". The definition of human capital is, however, sufficiently broad so as to embrace academic education, work experience and skill, health and work ethic, among others. The creative potentials and talents that individuals possess may also be seen as asset-bearing endowments.

With specific reference to formal education, the distributional aspects of access must be a prime consideration for national development and policy. The pertinent questions should be "who will benefit" and "what happens if certain students are able to benefit more or less from a particular type of education". The next logical question therefore, should be "does equality of educational opportunity demand that equal resources be provided for unequal students?" There is as yet no generally agreed upon answer to this last question. So far however, it is clear that there are likely to be "better poverty outcomes in settings where educational outcomes are distributed more equitably". In poor societies with high levels of socio-economic inequality, good quality education is likely to be the only upward route for the underprivileged.

Accordingly: the underprivileged, in order to subsist and climb the socioeconomic ladder, depend – more so than their wealthy counterparts - on their access to and permanence in educational institutions, and on the quality of the instruction imparted to them.

In this connection, achieving equitable educational opportunities that ensure equitable quality and relevance may require some amount of "positive discrimination" strategies so as to bring the marginalized up to a particular level of education.

EQUALITY OF EDUCATIONAL OPPORTUNITY HELPS TO REDUCE POVERTY

2. OECS Development Strategies and Human Resource Development

In the face of increased globalization, reductions in preferential trading access, and heightened competition, the OECS region has decided that its development strategies must be more focused on the areas of services and information technology.[1] This will require significant human capital investment (education, skills training) and technological development, and therefore also greater emphasis on the capabilities of the educational systems. Given the importance in this region of developing new and innovative development strategies, it is especially important that "the educational system should prepare persons to be innovators, logical thinkers, problem solvers and agents and managers of societal change.

Added to this is the reality that in the 21st Century, wealth is now being created through the leveraging of knowledge in the so-called Information Age. Current forecasts for the new millennium therefore warn that:

individuals who do not master reading and writing skills, a second language, sci-

CURRENT GROWTH STRATEGIES WILL REQUIRE GREATER MASTERY OF SKILLS AND INNOVATIVE THINKING IN THE AREAS OF SCIENCE, TECHNOLOGY (INCLUDING INFORMATION), LANGUAGES, COMMUNICATION

entific and mathematical knowledge, and [will] not have access to cutting-edge information technology, will be dispossessed of the keys to modernity, and will not be considered "literate" in the 21st century.

In this connection there has been some general consensus on the critical necessities for the OECS region. These include:

- improvements in the access to post-primary education and general education quality and relevance;
- eradication of the stratification in terms of school quality/type and other inequities;
- promotion of mastery in literacy, science, technology (including information), mathematics, foreign languages, communication skills;
- promotion of critical thinking and analytical skills at all levels;
- gender equity;
- tapping into and harnessing creative potentials

With tourism as a major contributor to GDP growth in the sub-region, skills in the arts, music, entertainment and craft/artisanship are increasingly seen as critical human capital. Here, the issue of relevance becomes critical as this kind of growth strategy will necessitate more intensive education and training in areas such as information technology, agro-industry, and the performing and creative arts. Further, the training experience must be such that its recipients can more successfully and effectively market their skills. In other words, current economic policy means that education must be conceptualised as something that is far wider than academic training and which may well require some "reassessment and reordering of current programme priorities, along with the redeployment of resources".

Educational reform will be necessary, and the Caribbean Education Task Force has already highlighted the required strategy for reform as one that remodels the education systems to cope with a changing future, with the strategic objectives being:

- an internationally competitive labour force; and
- equitable, effective education systems[2]

These objectives are expected to aid in the creation of the Ideal Caribbean Person as articulated by the 18th Summit of the CARICOM heads of Government. Among other things, this ideal person is expected to demonstrate multiple literacies, critical thinking skills and a positive work ethic, and display creative imagination. In the final analysis, the goal must be the creation of "an intelligent human intellectual capital resource base …which can compete with brainpower industries anywhere in the world". To achieve this however, all inefficiencies of the education systems in the forms of variable school quality, limited access and other forms of inequity will have to be reduced to a minimum, if not eliminated.

3. Situation Analysis of Education and Educational Performance in the OECS

The Caribbean education system - patterned off the British system - is divided into four levels, namely pre-primary, primary, secondary and post-secondary/tertiary. At present, the system of education in the OECS is best described as varied. Some countries are not yet able to offer free education up to Sixth Form. Basic Education also varies between the provision of compulsory primary and first-cycle secondary[3] education, and primary and secondary education up to Fifth Form. A

major problem – especially at the post-primary level - is related to access.

3.1. Enrolment and Access

Historically, the perception of pre-primary education as little more than a custodial service and thus not significantly important, led to poor enrolment rates at this level. Since the 1980s, however, there has been increased public appreciation of the importance and significance of this level of education. As is evident in Table 4.1, approximately 80.0 per cent of the relevant age cohort is enrolled at this level of the educational system. All governments are committed to the provision of universal primary level education (considered to be basic education), and the figures in the table suggest that with near universal primary enrollment, this goal has been achieved in all the OECS countries.

Regarding secondary education, universal secondary education also continues to be an important goal, and there has been a fair amount of effort to expand the number of places offered at this level. However, while the British Virgin Islands, Antigua, and perhaps St. Lucia and St. Kitts-Nevis may be approaching that target, countries such as Anguilla, Grenada and St. Vincent still have some way to go[4]. The generally lower enrolment rates at this level, are the result of the inadequacy of school places, and, as will be seen later, the costs of pursuing education.

Tertiary level enrolment has witnessed significant growth over the past two decades; but with enrolment rates still averaging at approximately 2% in the OECS region, it is nevertheless very low – especially in relation to the stated CARICOM Heads of Governments' goal of providing for 15.0 per cent of the relevant age cohort by 2005. It is also very low in comparison with the weighted average of 20-22% for middle income countries. These rates may improve as a result of the enrolment expansion efforts by the University of the West Indies, the upgrading of the College of Arts, Science and Technology in Jamaica to university status, the establishment of the St. George's University, Grenada, the continued efforts of the University of the Virgin Islands, the influx of foreign (particularly USA) university programmes offered locally, and the consolidation of post secondary programmes into national colleges.

All of these expansionary efforts have significantly increased the availability of technical and vocational training in the region, but there is a general perception that the levels are still unacceptable. There are no national level data that can give a complete picture of total and current throughputs in these subject areas. It may however be noted that vocational subjects now account for a mere 7% of the subjects sat at the CXC 'O' (General) Level.

3.2. Efficiency and Effectiveness

Mere access to secondary education and eligibility for these examinations, are not, however, sufficient indicators of neither the extent of human capital investments/endowments, nor their capacity to render a country more resilient to external shocks; neither does it indicate the increased potential for sustainability. The quality of education, and the relevance and success of students sitting these examinations must, in the final analysis, be the important factors. While substantial gains have been experienced in terms of access to education at the various levels over the last thirty years, the issues of efficiency and effectiveness are now of

Table 4.1
Education data for the OECS

Country	Education Expenditure (% of GDP)	Pre-Primary Gross Enrolment	Net Primary Enrolment	Net Secondary Enrolment	% Cohort Survival to Grade 5
Anguilla	5.1	92.7	98.9	n/a	94.0
Antigua & Barbuda	2.6*	n/a	n/a	n/a	n/a
BVI	3.1	89.0	n/a	n/a	n/a
Dominica	11.5	65.0	98.0	n/a	89.3
Grenada	11.6	n/a	n/a	n/a	n/a
Montserrat	11.1	81.0	n/a	n/a	94.0**
St. Kitts/Nevis	9.9	79.0	88.6	96.4	n/a
St. Lucia	11.0	78.3	98.0	65.9	94.8
St. Vincent & the Grenadines	10.7	n/a	84.0	n/a	n/a

aSource: Caribbean Group For Cooperation in Economic Development: A Caribbean Education Strategy, 2000.
*** Recurrent figure only**
**** - Figure sourced from Errol Miller – "Education for All in the Caribbean in the 1990s: Retrospect and Prospect (Monograph Series No. 19, UNESCO 2000 EFA in the Caribbean: Assessment 2000).**

some concern. Particularly important is labour market relevance and readiness for the challenges posed by the new technological and information age. It may be argued that it is at the secondary level that the individuals begin to acquire the skills needed for success on the labour market. In this regard, the very low number of students – 18% - obtaining no more than 2 subjects in one sitting at the CXC ('O') (Basic and General Proficiency) level - must therefore be viewed with concern. So too must the continuing concentration in a very limited range of subjects. For the OECS region the top four subjects (that is, in terms the numbers sitting them) were English, Principles of Accounting or Principles of Business, Mathematics, Social Sciences and Caribbean History. Approximately one-half of the total number of candidates sat English or Principles of Business and Accounting. Thereafter, the numbers fall away quite sharply: the figures for Mathematics, Social Sciences, and History are 38%, 25%, and 16% respectively. Since success in English Language and Mathematics is likely to be critical as they are core subjects which are fundamental to the learning of other subjects as they teach expression, comprehension and analytical skills, it will be instructive to examine the performance levels in these two areas. Further progress - either within the formal educational system or in the higher levels of the labour market - normally requires the demonstration of competence in these two fundamental areas. Poor academic performance is suggested by the existence of the many remedial programmes to improve functional literacy. This issue is discussed in greater detail in Section 3.2.2 below.

Education efficiency and effectiveness may then be measured in terms of the allocation of resources, investment in the professional qualifications of teachers, pupil/student repetition rates and achievement and performance rates in Mathematics and English Language terminal examinations such as CXC Caribbean Secondary Education Certificate (CSEC).

Table 4.2
Estimated education expenditure as a percentage of total government expenditure

	Antigua*	BVI	Dominica	Grenada	Monts.	St. Kitts & Nevis	St. Lucia	S.V.G.
1990	13.5	18.2	…	…	13.6	19.9	…	….
1991	…	10.0	13.8	14.0	15.9	18.8	14.8	…
1992	12.6	10.6	15.3	15.4	19.0	9.8	15.5	14.9
1993	11.9	12.3	14.6	13.8	20.5	9.6	15.7	15.0
1994	13.1	12.8	14.8	12.7	17.3	9.8	13.6	16.6
1995	11.8	12.1	13.8	13.1	18.5	13.2	15.8	17.0
1996	8.3	34.0	15.5	13.8	14.2	12.4	20.1	15.5
1997	…	12.6	13.6	13.0	7.5	16.3	18.6	14.1
1998	…	11.5	…	16.0	….	14.8	…	16.6
1999	…	…	…	16.3	…	15.8	20.1	16.2
2000	…	10.3	…	16.0	…	16.0	19.6	17.3

*Recurrent Expenditure Only.

Sources: Government Estimates, Various years

3.2.1. Education Expenditure

Available education data [See Table 4.2] on the OECS region show that Government investment in education has been fairly consistent and significant, with several governments spending, on average, between 12-20% of total government expenditure on this sector**.** Expressed as a percentage of GDP the proportions range from a low of approximately 3% in the British Virgin Islands and Antigua-Barbuda, to a high of almost 12% in Dominica and Grenada [See Table 4.1]. Several Governments have been spending between close to one-fifth of their recurrent budgets on education. For example, in Dominica, the 1999/2000 education recurrent budget was 19.4 per cent of the total recurrent budget. Some 23.0 per cent of the education budget was spent on secondary education and 7.0 per cent on tertiary education. In the case of Grenada, the 1999 education recurrent expenditure was 18.7 per cent of the total recurrent expenditure for the country [Estimates of Revenue and Expenditure for 1999]. St. Vincent and the Grenadines's recurrent education expenditure for 2001 is expected to be 18.6% of total recurrent expenditure .

On the face of it, it would then appear that most governments have tried to maintain fairly reasonable levels of educational expenditure; they compare well with the average of 15.5% (the range is 5.6% - 28.1%) for Medium Human Development Countries. There is however some evidence that there has been some fall-off at the primary level. The norm is for expenditure at the primary level to be greater than 50.0 per cent of total education expenditure. Available data for Dominica for example, show the proportions of expenditure on education spent at the various education levels [Figure 4.1]. Although the proportion spent on primary level education was the largest, it declined over the decade of the 1990s, with the proportions spent on secondary and tertiary level education showing marginal increases.

It should also be noted that most (80-95%) of the education budget is spent on recurrent expenses – with obvious impli-

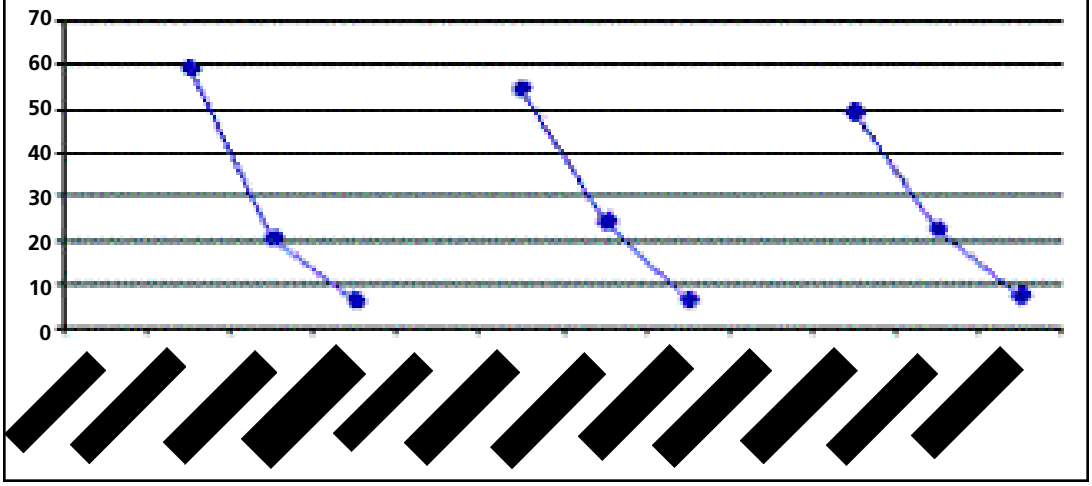
cations for infrastructure adequacy, and the sufficiency of the material and supplies going into the educational systems. Indeed an examination of the capital expenditure trends over the 1990-99 period in the countries for which there are available data (and as shown in the Official Estimates) shows that on average, the proportion of the budget going to capital expenditure ranged from 6% in Dominica to 17% in St. Kitts. Further, the proportions fluctuate quite widely, and show little upward trend.

Unfortunately, the expenditure levels – most of which is devoted to wages and salaries - have not been able to stem the outward flow of skills out of this sector. Notwithstanding the fairly substantial government investment in teacher training there has nevertheless been a substantial loss of trained teachers from the region. Within the last decade, the region has witnessed a haemorrhage of high skilled, technical and professional personnel, with teachers and nurses making up a significantly high proportion.[5] Within the Caribbean region, at the start of the 1990s, 69% of all teachers had some professional qualifications; by 1997/98 this had risen to 75%. At the end of the 1990s, however, some 13 of the countries were unable to meet their target of 80.0 per cent professionally certified teachers. This is problematic as it can be argued that survivability is to a great extent determined by the sub-region's ability to retain its professional, skilled and technical population in substantial proportions.

3.2.2. Academic Performance

As indicated earlier, there is increasing recognition of the importance of assessing student performance at the secondary and tertiary levels so as to be able to determine the adequacy of their preparation for participation in an increasingly global world. In particular, the successful completion of primary and secondary education is especially critical

Figure 4.1
Current expenditure on primary, secondary and tertiary education as a proportion of current education expenditure (Dominica)



Source: "Indicators 2000", Education Planning Unit, Ministry of Education, Science and Technology, Roseau, Dominica (September 2000).

as this provides "a foundation for basic skills that prepare young people to become productive members of society". Recent analyses in the OECD countries have found that access to, and successful completion of, upper secondary education tend to be associated with higher employment levels, higher earnings, better work habits, better labour force participation rates, and, in general, with greater success and mobility in the labour market. Even more specifically, a great deal of attention is therefore being placed on measuring and improving "prose (reading) literacy", "quantitative (mathematical) literacy" and "scientific literacy." In this connection, literacy levels, as well as the performance in Mathematics and Science have come to be critical tools for assessing the performance of a country's educational system.

In this report focus will then be on two indicators: namely, Adult Literacy, and performance at the CXC "O" Level – with particular emphasis on performance in Mathematics and English.

Table 4. 3:
Adult literacy rates – OECS countries

Country	Male	Female	Total
Antigua (1991)	87.4	85.9	84.4
Anguilla (1992)	72.8	77.9	75.4
BVI (1991)	97.8	98.2	95.7
Dominica (1993)	n.a.	n.a.	96.4
Grenada (1991)	93.7	95.1	94.4
Monts (1996)	91.1	95.7	94.2
St. Kitts (1991)	98.2	97.4	97.8
St. Lucia (1991)	n.a.	n/a	90.2
S.V.G. (1991)	88.2	89.5	88.8

Sources: Development Planning Unit, BVI Ministry of Education, Antigua and Barbuda Statistical Planning Unit; Ministry of Planning - St. Kitts and Nevis. St . Lucia
NB: These are all estimates – based on completion of at least 7 years of primary schooling of the adult population aged 15 years or more. In the BVI the estimate was based on 5 or more years of schooling

EDUCATIONAL EXPENDITURES NEED TO BE BETTER MATCHED WITH GREATER EFFICIENCY AND IMPROVED EDUCATIONAL PERFORMANCE LEVELS

a) Adult Literacy

On the face of it, the countries would appear to be doing very well with almost all of the countries reporting rates well in excess of 85% [See Table 4.3]. However, since the rates will, and do vary according to the methodology used, some caution must be exercised in their use: questions have been raised about the usefulness and accuracy of these data. In most instances within the region the literacy rates are estimates based on the number (3-6) of years of primary schooling. But it has been found that almost invariably, actual literacy surveys have tended to produce rates that are lower (by up to 10 percentage points) than those generated by a "years of schooling" indicator. Further, from the perspective of measuring the capacity for participating in the changing and more challenging economic environment, it may be necessary to exclude the group now classified as "functionally illiterate". Real literacy rates are then likely to be considerably lower. In St. Lucia for example, with functional illiteracy at 18.7%, the literacy rate in the 1990 survey would only be 54%.[6] The issue is more than a methodological one: when all of this is added to the possibility that over the past 30 years literacy rates may not have changed significantly, and that not only is there a:

> significant gap between the current levels and the criterion of a fully literate adult population [but also that] the available evidence does not seem to suggest that this gap was reduced by half over the decade of the 1990s,

then the quality and effectiveness of the basic education being provided would appear to need serious review.

b) CXC "O" Level Performance

To further assist the assessment of the educational performance levels in the OECS region, attainment levels in the two most basic and essential subject areas: viz, English and Mathematics, were examined. The data are shown in Tables 4.4 to 4.7. Particular attention is given to performance at Grades 1-II for the pre-1998 period, and Grades I-III for the post-1998 period – general proficiency level only. These have been the grades deemed acceptable for matriculation and further advance in the formal educational system, and are the ones most recognised by the labour market. [See also Technical Note, Appendix I].

Several points may be highlighted. First, all countries, with the exception of Montserrat, have enjoyed significant increases in the number of candidates sitting the CXC [Caribbean Secondary Examination Certificate (CSEC)] examinations between 1990 and 2000. This was due in part to substantial improvements in the access to secondary level education. Secondly however, while, on the one hand, these increases could speak well for the future of the countries, on the other hand the poor performance levels must be noted. In the last two years, 1999 and 2000 for the Caribbean as a whole, less than one-half of students sitting CXC English Language and Mathematics were awarded Grades I, II or III. In English, there was an improvement in the proportions obtaining these grades – moving from 46% to 49% - still less than one-half of all candidates. Regarding Mathematics, performance [year 2000] has been particularly poor, with a mere

Table 4.4
OECS CXC candidate entries, 1990 and 2000

Country	No. of Candidates Sitting 1990	No. of Candidates Sitting 2000	% Change
Anguilla	140	209	49.3
Antigua	717	1244	73.6
British Virgin Islands	182	233	28.0
Dominica	981	1362	38.8
Grenada	1494	2428	62.5
Montserrat	121	44	-63.6*
St. Kitts/Nevis	620	1028	65.8
St. Lucia	1849	2938	58.9
St. Vincent	1608	2200	36.8

(*)Montserrat has experienced massive external migration and other problems due to volcanic activity.
Source: CXC Statistical Bulletin, 1990, 2000

Table 4.5
Proportion of students across the Caribbean, passing CXC English Language and Mathematics (May/June 1999, 2000)

Subject	Numbers Writing Examination		Grade 1		Grade 2		Grade 3	
	1999	2000	1999	2000	1999	2000	1999	2000
English Language	68,116	70,322	11.1	13.2	12.8	13.6	22.4	22.5
Mathematics	65,593	67,769	3.2	6.0	7.4	11.4	17.2	21.8

Source: CXC Statistical Bulletin, 1999, 2000.

17.4% gaining Grades 1 or 2. Including Grade III brings the total percentage to 39% only - down from 49% in the previous year.

In disaggregating the regional data for the year 2000, so as to focus more specifically on country level performance within the OECS sub-region, the following may also be highlighted: OECS performance in English (Grades 1-III level) is superior to that of the overall Caribbean average, as, with the exception of Grenada – all countries have proportions well in excess of 50%. With regard to Mathematics, although OECS performance levels are considerably lower, they are nonetheless above the Caribbean average. Thus for example, the OECS sub-regional average is 53% - with averages ranging from 27% in Grenada to a high of 75% in the British Virgin Islands. In this regard, the relatively good performance (that is, in comparison to the rest of the sub-region) in the British Virgin Islands, pre-volcanic Monsterrat, and Anguilla should be noted. In general however, Mathematics remains a weak area, as the only countries in which more than 50% of the candidates obtained Grade 1-III passes in this subject were Dominica, BVI, and St. Lucia.

Tables 4.5 and 4.6 [also Tables 9 (a & b), and 10 (a & b), Appendix II] show the proportions of the candidates who satisfied the CXC council's criteria for grade level (I-III) awards in CXC - English Language, and Mathematics - over the decade.

It must be stated from the outset that the figures for the post-1997 period are not comparable with those for the pre-1998 period. In June 1998, in an attempt to obtain a more accurate indication of the number of persons with the capacity to profit from further education, a new classification scheme, and assessment criteria were introduced. It is therefore very difficult to accurately assess the trends over the entire decade of the 1990s, as equivalencies - over time - for the top three grades cannot be easily nor readily established.[7] Accurate and useful comparisons, and/or trend analyses will also require systematic evaluations of the impact of the new classification scheme – that is, in respect of further educational performance, and competitiveness on the labour market.

The available data do however suggest the following general conclusions: firstly, for students in the OECS who sat the CXC English Language examination, disaggregation by country shows that certainly between 1990-1997, most countries have shown improvements in the proportions obtaining the higher grade levels in the English Language. In Dominica, performance appears to have been either constant or enjoying steady improvement. In several of the countries however – such as Antigua, St. Lucia, St. Kitts-Nevis, and St. Vincent and the Grenadines - the fairly wide fluctuations in performance levels must be noted; in other words, apparent improvements (at least in the particular subject under focus here) have not always been maintained.

Secondly, and with respect to Mathematics, the performance at the Grade I-II and III levels has been generally very modest: in the pre-1998 period, with the single exception of the BVI, the country–level percentages and sub-regional averages do not exceed 40% of the candidates sitting. For the post-1998 period, even though insufficient time has passed to allow any trend analysis, it is nonetheless interesting to note that although the percentages with acceptable grades are now higher [See Endnote 7], in several instances the combined Grade I-III performance is lower in 2000

Table 4.6:
Percentage grade level performance in CXC English Language, Mathematics

Country	English Language				Mathematics			
	1990	1995	1997	2000**	1990	1995	1997	2000**
Anguilla	21.2	45.60	54.80	85.7	12.5	25.0	50.0	40.6
Antigua	39.1	51.40	50.80	64.3	36.1	34.7	30.1	36.3
BVI	71.4	39.10	64.22	80.4	70.8	59.4	47.2	75.0
Dominica	38.8	41.10	60.30	79.3	32.3	31.4	36.2	51.2
Grenada	17.6	27.86	35.30	42.2	31.0	34.2	21.0	26.3
Montserrat	62.5	67.20	79.20	87.0	60.0	31.9	38.5	47.1
St. Kitts	53.0	49.40	47.60	65.9	45.2	37.4	31.5	42.6
St. Lucia	37.0	36.70	43.70	58.3	40.5	41.3	28.3	51.1
St. Vincent	32.8	41.10	47.60	64.2	42.3	39.4	22.8	44.7
OECS Regional Average	41.5	46.6	53.7	64.2	41.2	37.2	33.9	52.6

Source: CXC Statistical Bulletins, 1990-2000
NB: 1990, 1997 data refer to Grades I, & II; The 2000 figs only, include Grades I-III. See also Technical Note, Appendix I
**** See Endnotes # 1 & 2**

than it was in 1998. For English Language this is true for six of the nine OECS countries; while for Mathematics this is the case in two countries: namely, Anguilla and St. Kitts-Nevis. Finally on this issue, it is interesting to note that in Mathematics if the more inclusive Grades I-III (1998-2000) were to be compared with the earlier Grade I-II (1995-98 only), in at least two countries - Antigua and Grenada - the three-year average is lower for the latter period. Given the wider spread of the Grade I-III band, one possible implication may be that where the percentages are nevertheless similar or lower than those in the pre-1998 period, then performance in Mathematics may have deteriorated to a greater extent than may be indicated by the available data. While firm conclusions about trends cannot now be drawn from these data, they should nonetheless alert policy-makers and planners to the need to ensure that significant fluctuation or downward movement does not occur nor continue.

When the numbers who pass both Mathematics and English in one sitting are combined, the picture revealed reinforces the need to be concerned. These figures are shown in Table 4.7. There it will be seen that the proportions (that is, approximately one-third or less of those sitting) are very low – especially in countries such as Anguilla, Grenada, St Lucia, and St. Kitts. Between 1995 and 1997, the performance levels declined; and, if it may be assumed that the comparable figures lie somewhere between the two sets of figures for the year 2000, it is likely that after 1997 performance levels improved in the BVI, Dominica, St. Kitts-Nevis, and St. Lucia, while in other countries – such as Anguilla, Antigua, and Grenada - there was further deterioration in 2000. This is the third point to be noted.

As already noted, the countries with fairly consistently better performance levels have been the British Virgin Islands and Monsterrat[8]. To the extent that any inferences may be drawn from the 1998-2000

Table 4.7
Percentage performance rates in English Language and Mathematics (June)

Country	1995[a]	1997[a]	2000[a]	2000[b]
Anguilla	13.2	25.0	4.0	22.7
Antigua	23.7	22.2	13.5	28.7
BVI	55.9	37.5	20.9	62.7
Dominica	20.3	23.4	14.2	37.7
Grenada	23.1	12.3	4.6	13.8
Montserrat	32.8	27.0	11.8	35.3
St. Kitts	19.2	12.3	8.4	23.0
St. Lucia	17.4	14.7	10.1	26.8
St. Vincent	25.8	21.6	8.6	29.5

Source: CXC data base – provided by the Secretariat
a) Grades I-II only
b) Grades I-III

figures it may be that the somewhat higher rank positions of Dominica and St. Vincent and the Grenadines may have been due to improvements in the performance levels in Mathematics.

Finally, the weaknesses in the CXC performance are also evident at a more general level – that is, using a wider range of subjects. The difference between the numbers sitting, and the numbers who satisfy the criteria of the CXC council for an award at Grades I-III (year 2000) is shown graphically in Figure 4.2. There it will be seen that the gap is widest among those sitting English Language, and Mathematics.

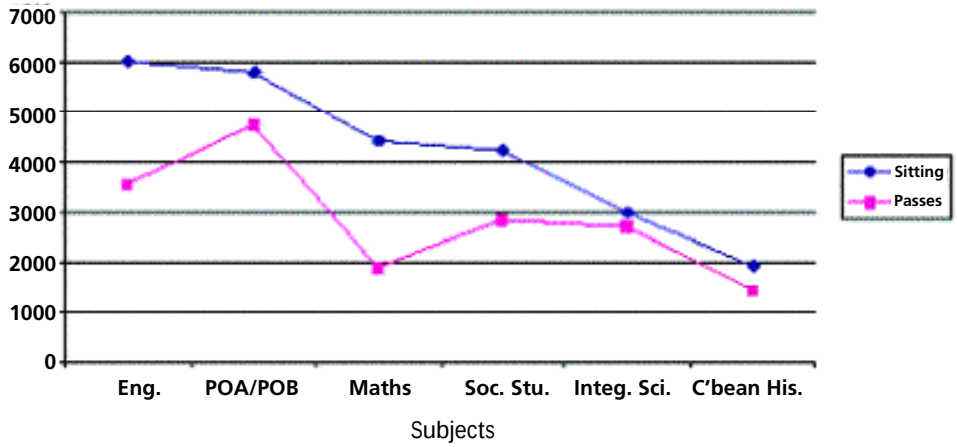
In summary therefore, it would appear that significant weaknesses continue in the human capital development process. Some countries, such as the BVI, Dominica and Antigua appear to be in a relatively stronger position; but against the background of the expectation for the 'Ideal Caribbean Person' to display multiple literacies, the relatively low-to-modest performance levels in English Language and

Box 4.1
Rank of performance in Mathematics and English Language combined

	Rank			
Island	1995	1997	2000[a]	2000[b]
BVI	1	1	1	1
Montserrat	2	2	4	3
St. Vincent	3	6	6	4
Antigua	4	5	3	5
Grenada	5	8	8	9
Dominica	6	4	2	2
St. Kitts	7	9	7	7
St. Lucia	8	7	5	6
Anguilla	9	3	9	8

Source: CXC Statistical Bulletin 2001; CXC database

Figure 4.2
Comparison of number of candidates sitting and satisfying the criteria for obtaining grades I - III: Top subjects



Source: CXC Statistical Bulletin 2001; CXC database

Mathematics, and the generally low sittings and performance levels in foreign languages, sciences, and technology may all render this expected characteristic unlikely in the immediate future. Since strong economic progress and positive growth will be jeopardised by a poorly qualified labour force and continued poor academic performances, efforts at improving the attractiveness and comprehension of mathematics must be encouraged, as must increasing its relevance to everyday applications. Current realities are that:

> rapid and continuous technological change is accepted as a feature of the twenty-first century, … labour intensive technologies are on the decline; (and) scientific knowledge and technological principles are now considered key to an increase in productivity and wealth.

The generally limited qualifications of the labour force brings into sharp relief the potential importance of, and need for more special attention to adult education programmes and to continuous training and skills upgrading. Adult education programmes must, however, be more than just literacy and numeracy, and vocational training in the traditional areas such as sewing, handicraft, culinary arts. While these are no doubt necessary, more attention needs to be given to an identification of emerging manpower needs – including those that have been defined as a result of deliberate policy development and planning. In other words, training and skill upgrading programmes must be more labour-market driven than has hitherto been the case, and should also enable the rapid retooling and labour market mobility necessary for sustainable survival in the current economic environment. Unfortunately, adult education, and technical and vocational training programmes are still stigmatised and seen as the alternative route or pathway for the "failures" of the formal academic education system. A new image needs to be given to these kinds of educational activities, and the concepts of continuous education and all-round development could be more beneficially promoted.

3.2.3. Educational Efficiencies

At the same time it is important to ensure

the best and most efficient use of the resources being applied to the educational sector. Educational expenditure levels have traditionally been used as one indicator of the educational health or performance of a country. However a comparison of estimated expenditure levels in a selected number of OECS countries suggests that there may not be an inevitable nor predictable association between expenditure, and educational performance (at least in Mathematics, and English) levels. Some examples are provided in Box 4.3: there it will be seen that while the British Virgin Islands, and to a lesser extent Montserrat and Grenada are consistently ranked in all areas, in the other countries, performance ranking differs from expenditure level ranking. Thus for example, although St. Vincent expends a relatively high proportion of its total budget on education (one of the highest in the OECS region), its ranking in terms of the actual educational performance is nevertheless moderate to low. On the other hand, St. Kitts-Nevis has one of the lowest proportions, but a moderate to high ranking in terms of educational performance.

Another way to assess the situation is to examine expenditures in terms of total, actual, per capita expenditure on education[9]; this further underscores the difficulties in using expenditure levels as an indication of anything else beyond the levels of government commitment to the sector. For example, in 1999, in comparison with St. Vincent and the Grenadines, and St. Lucia, St. Kitts has a relatively high per capita actual expenditure level: the figures are US$163 for St Vincent and the Grenadines, US$387 in St. Lucia, *versus* US$2,255 in St. Kitts-Nevis. Yet, the pass rates in English (Grades I-III combined) are similar (52-53%); in Mathematics, St. Kitts- Nevis has a somewhat lower performance than the other two countries (that is, 30% *versus* 36% and 37%). In this regard, it is also interesting to note that notwithstanding the declines in the performance levels (and the fall-off in educational expenditure levels) in both The

CONSIDERABLY MORE EFFORT AND ATTENTION THEREFORE NEEDS TO BE GIVEN TO THE DEVELOPMENT OF PERFORMANCE INDICATORS THAT CAN ADEQUATELY MEASURE THE CURRENT STATE OF EDUCATION AND THE EDUCATIONAL SYSTEM, AND TO DO SO IN WAYS THAT ARE COMPARABLE INTERNATIONALLY.

Box 4.3
Educational expenditure and educational performance: A comparison, 1993-1997[a]

		Rank	
Country	Educ. Exp[b]	Math Pass Rate[c]	English Pass Rate[c]
BVI	1	1	2
Dominica	4	6	3
Grenada	6	7	7
Montserrat	2	3	1
St Kitts & Nevis	7	2	4
St. Lucia	5	4	6
S.V.G.	2	5	5

a) These were the countries for which data were available for all the variables, and for a block of time - 1993-1997.
b) These are estimated expenditures expressed as a percentage of total Govt.expenditure.
c) Grades I & II only - General proficiency level. the percentages used to generate the rank order are the averages for the period.
Sources: Government Estimates - various years. Annual CXC statistical bulletin - various years

British Virgin Islands and Montserrat, their educational performance is still superior to that of most other OECS countries. Also, in spite of the fact that, if expressed as a percentage of GDP, the British Virgin Islands has the second lowest expenditure commitment [See Table 4.1], they consistently achieve the best educational performance.

In the final analysis these kinds of difficulties and "discrepancies" reinforce the importance of developing indicators that focus on the outputs of the system rather than its inputs. An important consideration may be that there is likely to be a fairly significant time lag between the occurrence of a high or sharply increased level of expenditure in a given year, and actual improvements in performance levels.[10] Considerably more effort and attention therefore needs to be given to the development of performance indicators that can adequately measure the current state of education and the educational system, and to do so in ways that are comparable internationally.

4. Equity and Human Capital Development

In addition to concerns with education quality, efficiency and effectiveness and performance, are those related to equity. Throughout this report the strong and significant relationship between poverty and the inadequacy of the human capital has been discussed. Against the background of the inadequacy of school places beyond the provision of basic education, there is also evidence that social class position has been important for continuation beyond this level. Placement at the secondary level and continuation in the system are heavily dependent on academic performance; this, in turn has also been a function of the availability of resources to purchase additional tuition (extra lessons), reading material and school supplies. Available Jamaica Survey of Living Conditions data show clearly that socioeconomic or welfare status largely dictates household expenditure on school-related items, especially extra lessons and books. Thus for exam-

Table 4.8
Percentage distribution of highest level of education of the general poor and non-poor, St. Kitts, St. Lucia, St. Vincent, Grenada

	Countries							
Education	St. Kitts		St. Lucia		St. Vincent		Grenada	
Level	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor
Nursery	0.0	0.1	1.6	0.6	0.0	0.0	0.2	0.2
Primary	12.5	17.6	75.0	67.6	77.9	66.2	71.4	62.9
Secondary	50.7	47.4	17.7	21.2	19.9	25.3	18.0	23.2
Post Secondary	3.1	7.5	3.6	5.0	1.1	4.1	4.1	4.2
University	1.1	5.2	0.5	3.3	0.3	1.2	0.7	1.8
Other	16.3	15.9	1.6	2.2	0.3	1.2	0.2	2.1
Not Stated	16.3	6.2	0.0	0.0	0.6	0.1	5.5	6.0
TOTAL	100.0 (448)	100.0 (1366)	100.0 (192)	100.0 (1080)	100.0 (357)	100.0 (802)	100.0 (567)	100.0 (1463)

Source: Compiled from Kairi Consultants Poverty Assessment Survey data, 1995 – 2001

ple, the highest quintile group, on average, spends twice as much on education-related activities and materials as do as the poorest groups; with respect to extra lessons the ratio increases to 3:1.

Further, there is evidence of a close relationship between socio-economic status, and school type. Thus for example, data from Jamaica and Guyana show that children from the wealthiest consumption quintile tend to be greatly over-represented in the better quality and more prestigious traditional high schools or grammar schools. Their counterparts from the poorest consumption quintiles, tend to have access only to the poorer quality secondary schools.

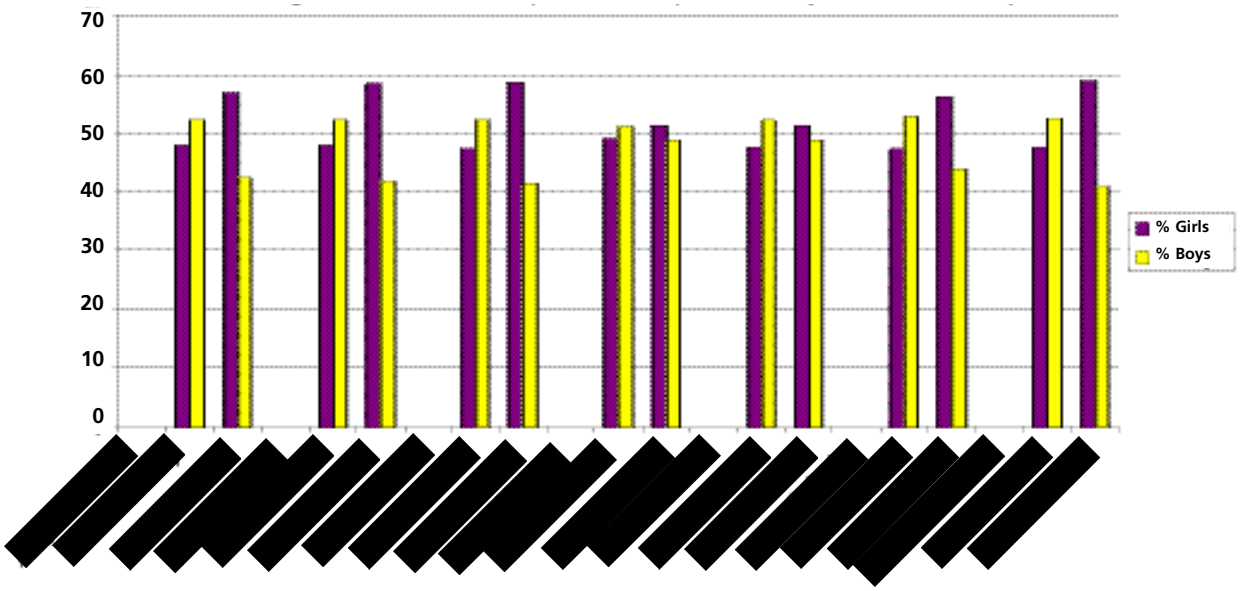
The data available from the Country Poverty Assessments (CPAs) conducted in the latter half of the 1990 suggest a similar story for the OECS region, in that they confirm the picture already painted by the data on performance, and also reveal significant disparities in the access to education by different income/consumption groups[11]. General education beyond the secondary level is low, with fewer than 8.0 per cent having post secondary education and less than 5.0 per cent having university level education. With respect to the level of secondary level academic qualifications, this was

Table 4.9
Percentage distribution of level of qualifications of general poor and non-poor, St. Kitts, St. Lucia, St. Vincent, Grenada

	St. Kitts		St. Lucia		St. Vincent		Grenada	
Level of Qualifications	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor
None	49.6	45.8	48.4	37.1	87.3	73.6	69.5	61.7
Sch. Leaving / Standard 6	17.4	14.6	34.4	37.9	5.6	7.6	3.2	5.2
CXC Basic	2.9	4.9	3.8	2.3	0.3	0.1	4.4	4.0
GCE O / CXC Gen.1 or 2	4.0	3.9	3.8	5.6	2.2	4.0	6.7	8.9
GCE O / CXC Gen. 3 or 4; SC Grade 3	2.7	5.1	3.2	4.3	1.7	4.4	0.9	0.7
GCE O / CXC Gen. 5 +; SC Grades I or 2	1.6	4.0	3.8	2.0	1.4	4.1	0.4	2.3
GCE A/HSC 1- 2	0.4	0.7	0.0	0.6	0.0	0.4	0.7	0.8
GCE A/HSC 3 +	0.9	0.4	0.0	0.3	0.3	0.1	0.0	0.5
Diploma/or equivalent; Cert. of Achievement	2.7	6.2	1.6	5.6	0.8	4.0	1.4	3.3
Degree	0.7	4.2	0.0	2.1	0.0	1.2	0.4	1.5
Other	1.6	4.8	1.1	2.8	0.3	0.5	0.9	2.8
Not Stated	15.6	5.5					11.6	8.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(448)	(1366)	(186)	(1081)	(355)	(802)	(567)	(1463)

Source: Compiled from Kairi Consultants Poverty Assessment Survey data, 1995 – 2001

Figure 4.3
Percentage distribution of primary and secondary enrolment by gender and country

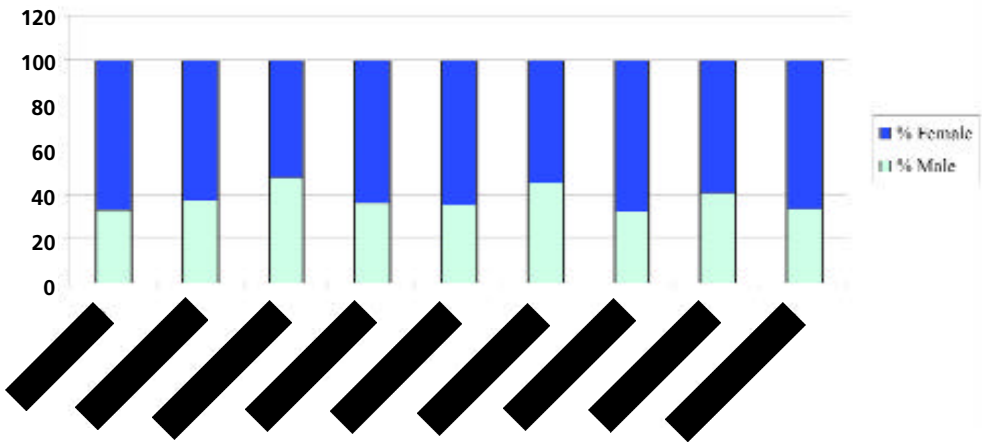


Source: National Statistical Offices; Ministries of Education

extremely low, as the majority tended to possess none. In Tables 4.8 and 4.9 the education level and level of qualifications of the populations not currently attending school are shown. [See chapter 3, Table 3.6].

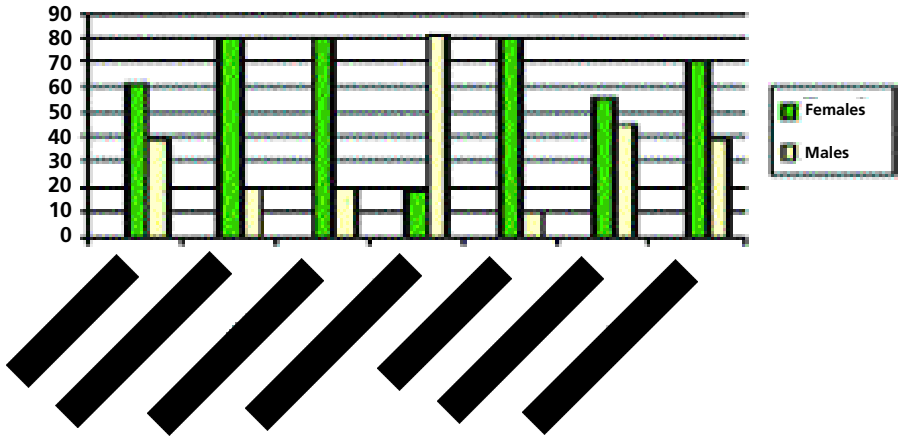
Examined by poverty status, the proportions with access to post secondary education plummet when one is poor; indeed, the poor are almost excluded from these levels. Household heads were no different from the general populace with respect to level of education and academic qualifications. Grenada and St. Vincent had the lowest levels compared with St. Kitts and St. Lucia. Heads who were in poverty were similarly disadvantaged, with less of them possessing high level education [See Tables 4.1 – 4.4, Appendix II). Finally on this matter, the poor had relatively insufficient access to the necessary educational support material. On average, one-half of students in the four countries for which CPA data are available, had exclusive use of all the required textbooks [See Table 4.5, Appen-

Figure 4.4
Percentage distribution of GSEC candidates by sex and country



Source: CXC Annual Report, 2000

Figure 4.5
Percentage distribution of UWI graduates by gender and field of study (2000)



Source: UWI Statistical Digest, 2001

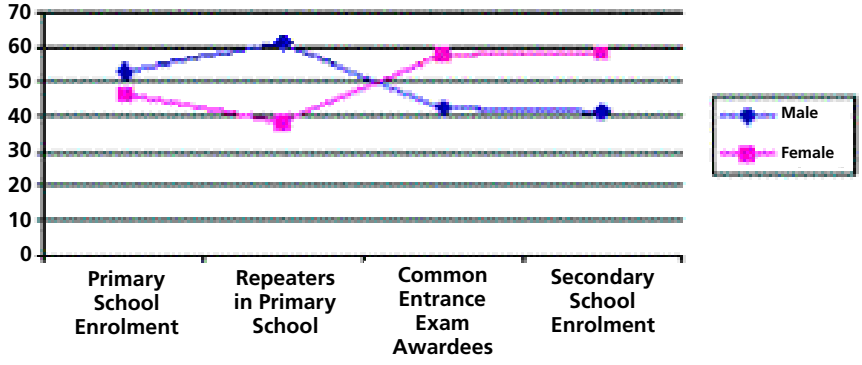
dix II]. The majority of the remaining one-half either had some or none. Reasons given for non-possession of all of the required textbooks were either that the books were not available or were unaffordable. Parents and students generally did not use a book loan facility, perhaps because none existed or they were not aware of its existence.

4.1 Gender Equity: Male Academic Under-participation

The concerns about equity in the education system are not, however, confined to the variability in school type; there is now growing concern with the gender-related inequalities in education.

At the present time, emerging evidence is that in the Caribbean region the academic participation and performance by boys in the school system is relatively low. Within the OECS, more boys enrolled in Primary schools than did girls. At the secondary level however, the reverse situation obtains: here, girls are more likely to be enrolled, and they also significantly out-

Figure 4.6
Percentage distribution of enrolment and performance by sex, Grenada 1995



Source: National Statistical Office ; Ministry of Education

Table 4.10
Sex disaggregation of enrolment, repeaters and CEE Awardees, Grenada 1991-1995

Year Enrolment	Primary School PrimarySchool		Repeaters in Examination Awardees		Common Entrance School Enrolment		Secondary	
	Male	Female	Male	Female	Male	Female	Male	Female
1991	52.6	47.4	64.0	36.0	37.2	62.8	41.9	58.1
1992	51.3	48.7	61.1	38.9	42.8	37.2	41.7	58.3
1993	52.6	47.4	61.9	38.1	35.9	64.1	43.0	57.0
1994	52.6	47.4	63.7	36.3	41.5	58.5	41.4	58.6
1995	53.1	46.9	61.5	38.5	42.3	57.7	41.4	58.6

Source: CSO: Grenada Annual Abstract of Statistics, 1996

perform the boys. [See Figs. 4.3 & 4.4, Table 4.10, and Tables 4.6 – 4.8, Appendix II]. At the tertiary level, this reversal becomes especially stark. Current data for graduates of the University of the West Indies show a vast disparity in enrolment by sex, with females outnumbering males by as much as 3:1 (figure 4.5)

At the secondary education level, especially beyond Form 3, the fall off in the participation rates of boys becomes visible as significant numbers of boys exit the school system (See for example, St. Vincent and the Grenadines – See Figs.4.7 (a & b)). The problem of the under-participation of boys at the higher levels of the education system is highlighted with data from Grenada, and St. Vincent and the Grenadines. Table 4.10 and Figure 6 provide some indication of the movement of boys, and the point at which it begins. Between 1991 and 1995 in Grenada, males outnumbered females in Primary schools and as repeaters in Primary schools. By Common Entrance level, the pattern was reversed and became well-established in the Secondary schools.

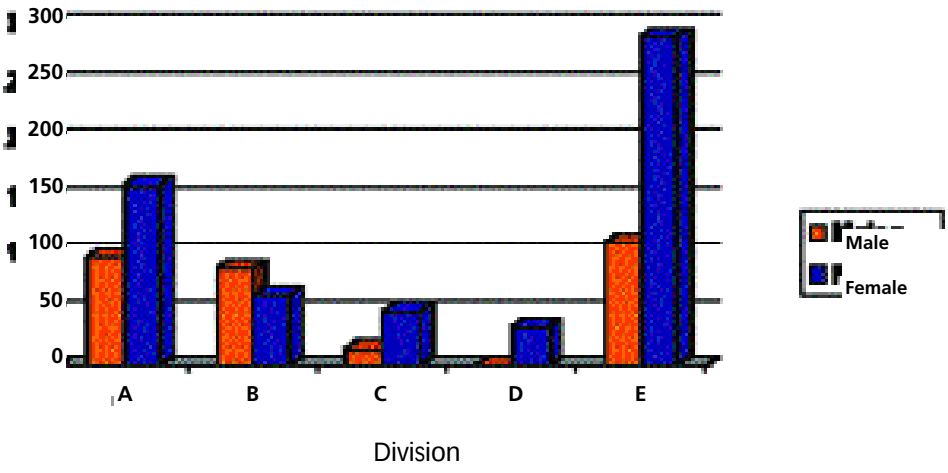
Figure 6 clearly shows the sharp reversal at the critical Common Entrance hurdle. It may then be argued that although the female dominance is most obvious at the post-primary levels the problem or imbalance began at the primary level. Indeed, at that level boys are more likely to be repeaters and a lower proportion of boys are in fact awarded common entrance

Table 4.11
Enrolment by main specialisation at The Sir Arthur Lewis Community College, St. Lucia – Male:Female ratio

Year	Arts & General Studies		Technical Education & Mgt. Studies		Teacher Education		UWI		Health Sciences		Agri-culture		Home Econs.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1996/97	1.00	2.59	1.00	0.85	1.00	3.80	1.00	2.41	1.00	11.57	1.00	0.45	1.00	14.0
1997/98	1.00	1.83	1.00	0.85	1.00	3.76	1.00	3.66	1.00	11.29	1.00	1.04	0	14
1998/99	1.00	1.67	1.00	0.66	1.00	3.95	1.00	4.17	1.00	9.88	1.00	0.55	0	9
1999/00	1.00	1.09	1.00	0.66	1.00	3.75	1.00	2.71	1.00	9.00	1.00	1.00	0	9

Source: Ministry of Education, Human Resource Development, Youth and Sports: Education Statistical Digest 1996-2000

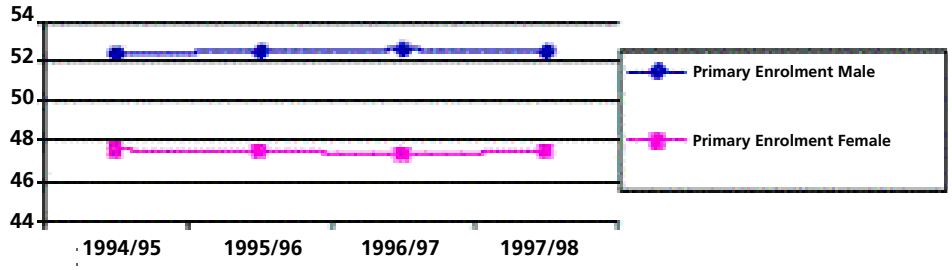
Figure 4.6b
Clarence Fitzroy Bryant College for further education
St. Kitts and Nevis enrolment, 1999



a) Arts, Science & General Studies b) Technical & Vocational Education & Management Studies
c) Teacher Education d) Nursing Education e) Adult & Continuing Education

Source: National Statistical Review 2000, Statistical Office, St. Kitts

Figure 4.7a
Percentage distribution of primary enrolment by sex - St. Vincent



places. The lower enrollment of boys at the secondary level from the earliest entry point may then be expected.

Data for St. Vincent reflect a similar pattern – that is, male under-achievement, which begins at the primary level [See Figures 7(a & b), 8]. Moreover, it is a pattern that has existed since at least 1994. Since that time too, the gender gap has widened substantially. Evidence from St. Lucia (See Table 4.11) further highlights the gender gap in enrolment at the post-secondary level. Noticeable too, is the subject sex segregation, and the greater participation of males in Technical Education and Management Studies.

The need for strategies that can retain boys in the educational system and improve their participation and performance is therefore becoming almost indisputable. These strategies must be based on a clear and ideology-free understanding of the reasons for growing imbalances. Recent work within the Caribbean has suggested that poorer reading skills among boys, teachers' expectations of

Figure 4.7b
Percentage distribution of secondary enrolment by sex, St. Vincent

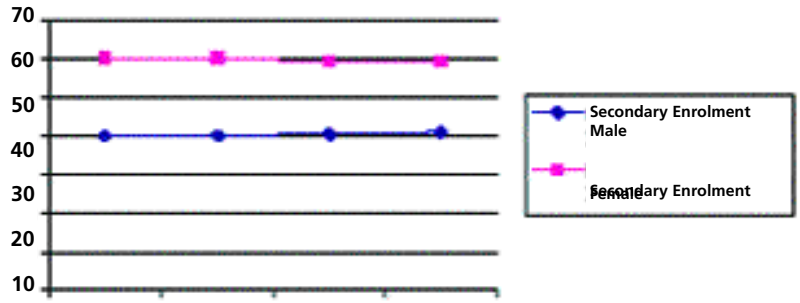
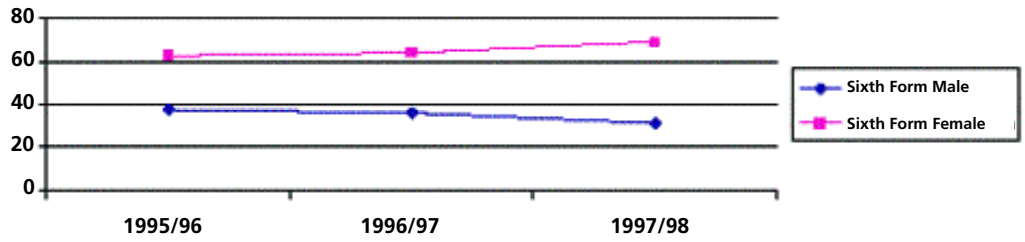


Figure 4.8
Percentage distribution of sixth form enrolment by sex, St. Vincent



Source: National Statistical office; Ministry of Education

secondary school boys relative to girls, harsher school experiences by boys, and the present construction of masculinity in the Caribbean, may all have some negative impacts on male performance and drop-out rates. Another area that would seem to merit further investigation is the adequacy of the match between current pedagogic practices and structures and the learning strategies and styles of males.

4.2. Education and Work: A Continuing Paradox

Notwithstanding the dominance of females in the education system, females still show preference for the traditionally "female" subject areas. While females have outstripped males in enrolment in the Faculties of Law and Medicine - traditionally male-dominated disciplines - and are increasingly enrolling in non-traditionally "female" areas of study since the decade of the 1990s, areas pertaining to the arts/humanities, education, science and technology still reflect gender conditioning. Subject streaming and cross-timetabling are among some of the responsible factors. In terms of cross timetabling, the scheduling of traditionally "female" and "male" subjects at the same time necessarily results in the sharp gendered selections. This continuing tendency for girls and boys to pursue traditionally "female" and "male" subjects will have clear implications for later career choice and labour market behaviours.

The persistence of occupational sex segregation is discussed in Chapter 3 of this report. Here, it will be sufficient to draw attention to the likelihood that female dominance in the educational system, may not yet be translated into a

Table 4.12
Employed persons by sex and educational attainment

Level of Educational Attainment	British Virgin Islands 1991 Census Data	
	Male	Female
None	0.4	0.3
Primary	41.0	29.6
Secondary	40.0	49.6
Pre-University	6.0	6.7
University	11.1	12.7
Other	1.4	1.3
Not Stated	0.2	-
Total	4,850	3,710

Level of Educational Attainment	Dominica 1997 Labour Force Survey Data	
	Male	Female
None	3.3	3.0
N'sery/Pre-sch.	0.9	0.2
Primary JSP	71.7	59.1
Secondary	12.1	23.4
Tech/ Vocational	2.5	3.0
C'ity College	4.0	5.6
University	4.7	4.4
Other	0.3	1.2
Not Stated	0.5	0.2
Total	14,560	11,130

Level of Educational Attainment	St. Vincent & the Grenadines 1991 Population Census Data	
	Male	Female
None	0.2	0.1
N'sery,/K'garten	0.0	0.0
Primary	76.0	56.2
Secondary	18.1	34.5
Pre-University	2.5	5.3
Univ. Post-Grad.	2.5	2.7
Other	0.6	0.9
Unknown	0.1	0.2
Total	21,800	11,640

Source: Digest of Caribbean Labour Statistics, 1998 . ILO Caribbean Office, POS, 1999.

capacity to either break out of the more traditional gender-defined labour force moulds, or to demand a greater share of income on the labour market. While females have outstripped males in enrolment in the Faculties of Law and Medicine - traditionally male-dominated disciplines, there is a tendency to practice in the so-called "feminine" side of the profession. For example, almost two-thirds (69%) of all female medical graduates of the University of the West Indies practice in the areas of Family Practice, Obstetrics and Gynaecology, and Paediatrics highlighted this fact in respect of the medical profession.

Available data on educational attainment of the employed labour force shows that females generally have higher levels of education. Nevertheless, data for the BVI, Dominica and St. Vincent and the Grenadines raise a number of questions (See Table 4.12). These include:

- To what extent does the lower educational level of males (far more employed males had only primary level education) mean that males get by faster in the labour market with lower levels of education and/or that that women have to have higher levels of education to fare well in the labour market?
- Are women practicing luxury unemployment, preferring to remain unemployed than to accept a job (low level) not commensurate with their education levels

This area merits further investigation, as one conclusion being suggested by these data is that the gender-educational differential may not in, and of itself, yield the expected differential in socioeconomic experiences of the sexes.

Conclusion: Sustainable Human Resource Development

The importance of a skilled and flexible labour force for sustained social and economic development can be quickly and easily conceded by developmentalists; so too must be the need for an efficient educational system that can effectively create and generate the skills and expertise required by such a labour market. In the Caribbean, education and its support systems have historically been given high priority, not only as a social right, but perhaps even more importantly because it appeared to provide a principal – or even the only - avenue for upward socio-economic mobility. So much so that it may indeed be argued that for a long time education was equally valued for the acquisition of skills that could command higher returns from the labour market, as well as for the social prestige endowed by certification.

However, in spite of the intensity of the high value consequently placed on education, in reality, the numbers benefiting have continued to be very limited, and those at the upper end of the socio-economic hierarchy have been the principal beneficiaries. In other words, the relationship between poverty and education continues to be a robust but negative one: the poor are less likely to be educated beyond fairly basic levels, and high poverty rates are associated with low levels of human capital development.

Also pitted against the high value historically given to education, is the evidence that the efficiency of the system is not at desired nor acceptable levels. Functional illiteracy continues to be high among the schooled (at least up to primary level) population, the performance levels are moderate to poor, and there would now appear to be serious problems with male underperformance and under-

achievement. In societies, which emphasise – as they now do – greater and more efficient participation in the global environment, and more focus on knowledge-based economic activities as a central element of their development strategies, the policy implications and challenges are clear. One is that the educational system needs to be more labour-market or manpower-needs driven than has hitherto been the case. So far, serious questions may be raised about the relevance of the education and training (including vocational) now being provided throughout the OECS region. Another is that considerably more attention needs to be given to significantly improving the cost-benefit or value-for-money ratios that must now obtain. Some of the specific issues that need to be targeted may then be listed: these are

- the provision of relevant education;
- the development of standardized curricula;
- the reduction of the limited access to the higher levels of the secondary system and to post-secondary level training;
- reducing the variable quality;
- expanding technical and vocational education opportunities; and
- improving the low achievement and declining participation by boys at the secondary and tertiary levels.

Certainly the persistent exodus of trained teachers can help to explain the difficulties that now exist; but it should also be recognised this exodus is also likely to be a symptom (indicator) of the more fundamental problems.

The difficulties and deficiencies described have consequences beyond labour force and labour market efficiencies. Certainly there are implications for the sufficient and rational utilisation of all available human resources; but there is also the likely impact on gender relations and gender conflicts – which may in turn help to foment gender-based domestic violence - as well as on the levels of juvenile delinquency and criminal behaviours among non-achieving males.

In this report it has been argued that reasonable survival in the international environment will require policy-measures that help to ensure the build up of resilience, and must focus on issues of sustainability. On the basis of the criteria used – that is, investment in education, performance levels, and the retention of skills in an innovative learning environment – it is clear that the region remains in a very vulnerable position

Endnotes

[1] IBID, section 3.02.

[2] A Caribbean Education Strategy: Discussion Draft, prepared by the Caribbean Education Task Force (June, 2000).

[3] Schools and Primary and Junior High schools which remain beyond Grade 6 (Standard 5 equivalent) are considered as having first cycle secondary education.

[4] The low level in Montserrat may be attributed to its recent natural disasters.

[5] See World Bank report on Access, Quality and Efficiency in Caribbean Education: A Regional Study [2000]

[6] The St. Lucian case is not a peculiar one in the region. Miller [2000] has also commented on the size of the functionally illiterate group in Jamaica (approximately 18%), and Belize (27%). In this connection the importance of clearly defining literacy and developing a common regional instrument for defining literacy has recently been emphasised [UNESCO EFA Regional Report 2000-1]

[7] In June 1998, a 6-grade scheme replaced the old 5-grade classification: Grade II was split into Grades II and III, and the band for Grade I made narrower. The new grade III now incorporated the lower end of the old Grade II, and the top of the old Grade III. The effect was also to widen the band for Grades I-III combined. It is therefore not possible to compare the old Grades I-II with the new Grades I-II, nor the old Grades I-II combined with the new Grades I-III combined. In Tables 4.9 (4 & b), and 4.10 (a & b), Appendix II, grade performances for grades I-III for the 1990-2000 period – English A, and Mathematics are shown. So too are the average performance levels for different segments of the 1990-2000 period. Annual averages are also provided for each country. There it will be seen that were an equivalency between Grades I-II (pre-1998) and Grades I-III (post 1997) accepted, in the post-1998 period for English A there is a substantial improvement in performance levels – with average performance levels frequently jumping by as much as 20-30 percentage points. This leap is sufficiently large as to suggest that it cannot be adequately explained by normal performance improvement. At the same time, not only does the size of the "leap" vary between countries, but it does not appear to be consistent for the two subjects; for example in Mathematics, the changes - although noticeable - are not major. Clearly more detailed analysis is required so as to disentangle the effects of changes and/or variations in the grading schema or assessment criteria, from real improvements in performance levels. In this connection it would also be necessary to examine the situation by subject area. Certainly any genuine comparison would therefore require some adjustment or realignment of the Grade II and III- level percentages.

[8] In light of the many natural disasters that affected Montserrat during the decade under review, inclusion in any comparative discussion must necessarily be hesitant. In this regard the very small numbers sitting the CXC examinations in the latter half of the decade must be noted. This may be expected to influence the overall performance data and percentages.

[9] Total and actual recurrent and capital expenditures in the Ministry of Education were calculated, and then related to the mid-year population for the same year. In most countries other sectors such as Youth and Sports were included in this budget item; but given the difficulties in consistently disaggregating the information, and since Education accounted for most of the expenditures, the overall figure was used.

[10] There are likely to be several reasons why this measurement of government commitment to a given sector or type of activity cannot and should not be used as an indication of the real state of the educational system and the quality of its products. Differences in the total resource base will be one; efficiency of resource utilisation, and areas of resource expenditure will be other possibilities.

[11] With the very small numbers (Ns), some amount of caution must be exercised in drawing conclusions. Further, the CPAs were conducted at varying times, making wholesale comparability somewhat difficult.

CHAPTER FIVE

Reducing the burden of disease on development capacities

1. Introduction

Within the OECS and wider Caribbean region, the post-war period has witnessed significant improvements in the general health status of the countries' populations. Throughout the region, life expectancies have increased, polio and small-pox have been eradicated, several communicable diseases – in particular, those against which persons can be immunised – are now of little importance, and in the last 15-20 years the rates of infant mortality, and malnutrition have fallen significantly.

Many of these improvements can be linked to the aggressive health policies of most of the region's governments, and their attempts to maintain their health expenditure levels – sometimes even in the face of declining revenues. This has, no doubt, been influenced by the beliefs firmly held by almost all Caribbean governments: that is, that access to good quality health services ought to be considered an inalienable human right. All Caribbean Countries have endorsed the primary health care approach and principles as enshrined in the Alma Ata Declaration. There have been conscious attempts to expand the reach and coverage of the community health services, and in some countries there are on-going efforts to improve health promotion activities. At present, all countries in the OECS region subscribe to the goals and objectives of the Caribbean Co-operation in Health [CCHI-II]. The overall vision of this initiative builds on the definition of health promoted by the World Health Organisation. This definition goes beyond the absence of disease and includes mental, spiritual and emotional health. It therefore:

> recognises that the factors affecting health go far beyond the ambit of the health sector and encompass the physical and social environment, and the individual's genetic make-up and life style. Interventions for improved health must [therefore] include education for healthy life choices and skills, food security, satisfactory housing, access to potable water supplies and proper disposal of waste.

Regional health priorities have, therefore, focused on areas ranging from food and nutrition, and chronic non-communicable diseases to health systems development and environmental

MORE INNOVATIVE WAYS NEED TO BE FOUND TO INCREASE THE RESOURCES ALLOCATED TO THE HEALTH SECTOR IF EARLIER GAINS ARE NOT TO BE ERODED

health.

2. Identifying the resources for health

In recent years, however, most of the countries in the region have been experiencing a widening of what has been referred to as the "resource gap"; this has been brought about by rising health demands on the one hand, and declining government revenues available for allocation to the health sector on the other. As a consequence, most of these countries have found it necessary to explore the possibilities for health finance reform that could facilitate an increase in the resources going to the health sector and/or at least identify more innovative and efficient ways of utilising the existing stock of limited resources.

In this regard, revised user fee programmes have been introduced in most of the OECS countries (eg. St. Vincent, and the Grenadines. St. Kitts-Nevis, Dominica, Grenada, Antigua and Montserrat), in a few instances (eg. St. Lucia and Grenada) consideration has been given to the privatisation of some services (usually the hotel services), and some countries (St. Kitts-Nevis, Anguilla, and the British Virgin Islands) have started private health insurance plans for government workers. In almost all of the countries the line between the public and private health sectors has become blurred as certain types of public sector health practitioners are allowed private practices, while private sector health practitioners are allowed use of public facilities at the secondary and tertiary levels. Finally, all countries are at varying stages of discussion and design of national health insurance schemes. None has as yet reached the implementation stage – with the possible exception of Antigua-Barbuda where a Medical Benefits Scheme has been in existence since 1978. The challenge of matching resources with desired goals and objectives is therefore a very real and ongoing one for all of the countries within the region; so too is that of ensuring that gains made in the past are built on and not reversed.

3. Socio-Economic Factors and Health

These challenges have become even more intense as the awareness and recognition of the close relationship between health, social well-being, and economic growth and development have increased and become more widespread in recent years. Traditionally, and in line with the focus on achieving well-being as an end in itself, concerns have principally been with the impact of income levels, material deprivation and economic inequality on health. The evidence of these relationships is now abundant and widespread, and has resulted in the elevation of social pathways to a critical and necessary place in any explanation of health status. In comparison with the non-poor, the poor tend to have higher mortality rates, are more likely to be ill, have lesser access to quality care, and are less likely to seek preventive care.[1] Health-damaging exposures also tend to cluster; as the Global Health Equity Initiative has noted:

Less advantaged members of a society may be exposed to poorer nutrition than their more affluent counterparts, but they may also face greater environmental hazards, higher tobacco consumption, decreased access to educational opportunity and the higher psychological stresses associated with chronic livelihood insecurity.

Social policy and poverty reduction strategy initiatives such as those now being developed in St. Vincent and the Grenadines, St. Lucia, and Grenada are therefore critical if improvements in

health status are to be achieved and sustained. Even more important are some of the lessons that need to be learned from experiences in other countries: there is growing evidence that even where overall income levels may have increased, avoidable health inequalities or an iniquitous health gradient frequently persist. Thus, social class disparities in health can persist in spite of improvements in the health services, and in the provision of equitable or universal access to health services and facilities. Indeed, it has been shown that increased expenditures do not guarantee better health, and there is a real possibility that "lack of access to essential health care is likely to make only a minor contribution to the overall difference in mortality". In light of all of this it has become clear therefore that policy initiatives need to focus much more on health promotion and on tackling the socio-economic determinants and correlates of illness and disease.

There is also a relatively new sensitivity to the reverse direction of causation; that is, the negative impact that poor health and well-being can and do have on economic growth and development. Awareness of, and discussions of the relationships between health, inequality, earnings, and productivity are not new. Nutritional wage models have sought to account for the circular relationship between persistent poverty and destitution, poor health, poor survival in a labour market, and inadequate food intake.[2] Within the Caribbean region, Demas, in a discussion of what is essentially a "poverty trap", also drew attention to the importance of social well-being for economic development. He noted that:

Human resource development is both an end itself and a means in the process of development. A human being who is healthy in body and mind, has a sound basic education and is decently clothed and housed is obviously better off materially and at a higher level of human development than a person without a basic formal education, adequate food, clothing and housing and who suffers from bad health and malnutrition. But the former person is also at the same time more capable than the latter of contributing to the production of goods and services and so promoting economic development in his or her country.

More concerted and continuing attention must then be given to the impact of social and human development on economic development; the consequent shift away from the conceptualisation of health, and education as purely consumption (and therefore non-productive) items in the national accounting system must therefore also be encouraged and promoted. To a significant extent, this shift has already been reflected in the definition of human development currently utilsed by the UNDP, and in its insistence that the promotion and improvement of health, and access to safe physical environments must be seen not only as rights and ends in themselves, but as an integral aspect of the process of building and enabling the capacities necessary for economic development [See discussion in Chapter 2].

4. Social Investment and Economic Development

In this connection and within this framework, it becomes important to be able to ascertain and assess the health status of a population, as well as the degree and types of health inequalities that may be present; but it is also necessary to be able to determine the likely burden of disease and poor social well-being on economic

POVERTY AND SOCIO-ECONOMIC DISADVANTAGES, AND GOOD HEALTH ARE ALMOST ALWAYS NEGATIVELY RELATED TO EACH OTHER

productivity, growth and development. This will enable a better appreciation of some of the factors impinging on the capacity to efficiently function in the competitive global environment. Participation in an international and globalised environment is not new to the post-Columbian states of the region; this has been an integral part of their birth, definition, and continuing existence. The current challenge is to reformulate and enable that participation in ways that are more beneficial than have hitherto been the case. Hindrances to the modes and extent of participation then need to be addressed.

An optimal situation would be one in which the contribution of illness and disease to any of a country's social and economic vulnerabilities is specifically identified, delineated, and quantified. In this way the capacity to effectively compete in the globalised environment could be more easily described, discussed, and targetted for action. A useful step in this direction has been made by the recent attempts to quantify the likely impact of the HIV/AIDS epidemic on economic growth rates in at lease two countries – Jamaica and Trinidad and Tobago. Thus, it has been estimated that by 2005 the current infection rates in the Caribbean (now the second highest in the world) may be expected to have significant negative impacts on critical areas of the economy, and in general, they could reduce the gross domestic product by approximately 5% (See Box 5.1). Although there would appear to be some very recent reductions in the infection rates, the sharp increases in all the OECS must therefore be viewed with alarm. It is now fairly well recognised that poverty, lack of education and information, gender inequalities and poor gender relations, and inadequate services, all help to support the continuing spread and growth of this global epidemic. Given the absence of any cures for this disease, the attempts to manage and curb the increases in infection rates must necessarily focus a great deal of attention on the design

Box 5.1
Macro-economic impact of HIV/AIDS on key economic variables – Trinidad & Tobago and Jamaica. (Average figures)

Impact Variables	Average Impact (%)
GDP	-5.3
Savings	-16.9
Investment	16.5
Labour Supply	-6.3

Adapted from Theodore, 2001

Table 5.2
AIDS by country with incidence rates per 100,000 population

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Anguilla	11.1	0	0	0	0	0	11.1	…	…
Antigua	4.7	9.4	21.5	26.2	24.6	10.6	19.7	10.4	7.5
BVI	12.5	6.0	11.6	11.2	5.6	16.7	5.6	16.7	5.3
Dominica	8.5	12.9	8.3	20.8	8.1	6.8	18.9	26.8	16.9
Grenada	5.3	7.4	4.3	22.3	7.4	19.1	18.2	10.8	6.5
Montserrat	0	0	0	9.1	0	0	0	0	20.0
St. Kitts	19.0	2.4	9.5	7.0	16.3	14.0	14.0	9.1	…
St. Lucia	3.0	4.4	5.8	8.6	9.2	7.0	9.7	10.3	6.8
St. Vincent	4.4	11.3	4.3	8.6	10.3	5.1	22.0	26.9	37.8

Source: CAREC. Website www.carec.org

and development of effective behaviour modification strategies and techniques. Caribbean governments are now acutely aware of the real challenge that this growing epidemic poses for social and economic development, and there are new initiatives to better understand the precise character of the risk factors in the region, and therefore also the most appropriate responses. In this regard it will also be important to seek to determine some of the possible reasons for the observed inter-island infection rates. There may be lessons to be learned about appropriate management of sexual behaviours and practices.

More generally, the collection and development of the kinds of data required to examine, in the robust and systematic manner desired, the relationships between health, poverty and economic growth in the Caribbean region are now both necessary and urgent. In the following sections the discussion will seek to draw out what the available information and data are able to reveal about the relationships between health status, health inequalities, poverty, productivity and economic growth. The implications for the health resilience of the population, and the ability of the society to sustain good health will also be discussed. In this way possible threats to the social capacities of the individual countries may also be identified.

5. Health Status and Health Inequalities

Some of the standard health status indicators are presented in Table 5.1. Comparisons with the situation in the USA, the UK, other middle- income countries are also provided. There it will be seen that while there is clear room for improvement, most Caribbean countries do enjoy reasonable levels of health. For example, in most instances life expectancy rates are now almost on par with those found in most developed countries, immunisation coverage rates are generally excellent, and infant mortality rates remain reasonably low and compare favourably with the average for other middle-income countries.

Malnutrition levels are generally low – even though individual countries report pockets of stunting and wasting.

Another similarity with the health situation in developed countries is the prominence of non-communicable diseases in the mortality and morbidity profiles of the OECS countries. In Table 5.2(a & b) data are presented which show that non-communicable chronic diseases [NCDs] such as malignant neoplasms, and heart and cardiovascular diseases, are now the top three causes of mortality. Thus, for example, Charts 5.1 (a & b) illustrate that, in the OECS region - over the 1994-2000 period – cancer was the

Chart 5.1 (a)
Rank positions of cancer by frequency of occurrence at that position - 1994 - 2000

Chart 5.1 (b)
Rank positions of cerebrovascular disease by frequency of occurrence at that position - 1994 - 2000

Table 5.1
Health status indicators - OECS countries, developed and middle income countries – Most recent years

Indicator	Ang.	Ant.	B.V.I.	Dom.	Gren.	Mont.	St. Kitts	S.T.L.	S.V.G.	OM-IC*.	USA	UK
Life Expect.												
Male	76.9	70.8	72.7	70.9	63.7	75.7	68.0	68.7	68.7	…	73.9[b]	74.7[b]
Female	79.1	76.8	80.2	74.9	67.0	77.5	71.9	73.6	70.6	…	80.0	79.9
(2000)												
YPLL (1995-(2000)*	n/a	4179	5538	6895	6143	10589	8070	12710	6469	…	….	….
IMR	6.2[c]	14.5[c]	9.5[d]	24.0[d]	19.2[e]	7.8[f]	12.7[g]	16.4[h]	22.2[e]	38.7[e]	7.0[e]	6.0[e]
Low Birth Weight (1999/2000)	n/a	6.4	…	8.1	9.2	…	11.1	…	6.3	8.7	7.0	7.0
Im'nisation Cover. (%) (2000)	n/a	99.0	99.0	99.3	95.0[a]	…	99.3	70.0	95.0	87.6	96.0	93.0
Malnut'ion (1999) ***	n/a	1.5	…	0.9	2.8	…	4.4	…	5.9	…	1.0	…

a) 1998 figure; b) USA and UK figs refer to estimates for the 1995-2000 period; c) 1997 figure; d) 1999 figure;
e) 1998 figure; f) 1997 figure;
g) 1999 figure; h) 2000 figure;
* OM-IC = Other Middle-Income Countries
** YPLL = Years of Potential Life Lost. Regional Average Life Expectancy = 72.7 years
*** Malnutrition: Underweight children expressed as a percentage of those attending clinic. This is measured by weight for age. The malnourished children are those falling below 80% of the median weight for age.
- It should be noted that these figures recently calculated (from life tables) and provided by country governments differ somewhat from those now available from World Bank and PAHO reports.

Sources: Caribbean Development Bank, Social and Economic Indicators; CAREC data; CFNI- Jamaica National Statistical Offices, Ministries of Planning; Ministries of Health; OECS Secretariat.
Human Development Report 2001; Website; www. worldbank.org. - Last consulted 23 Nov. 2001

leading cause of mortality 77.78% of the times; it was at the No. 3 (or lower rank) 22.22% of the times. Of some significance is the fact that in those countries for which data are available the rates found are often higher than those in developed countries such as the USA.

Although hard data on morbidity rates are not currently available, all country health situation analyses, individual country surveys, as well as discussions with key informants in the individual countries, indicate that these diseases plus hypertension, and diabetus mellitus also continue to be principal causes of morbidity.

This is significant for what it suggests about not only the prevalence of certain life-styles and socio-economic conditions known to be associated with NCDs, but also the likely economic burden on the health delivery systems, and the possible impacts on work habits and economic productivity. There is some evidence that in the Caribbean, the management of long-term illnesses can be especially burdensome for those at the lower end of the

socio-economic ladder as there is a constant effort to juggle multiple health and economic needs and demands, and an on-going search for scarce resources (in particular, pharmaceuticals and medical personnel) in the public health sector. Delays in the search for care, and unwise and irregular health management practices have been some of the responses and/or coping strategies utilized. More thorough examination of the effect of these behaviours and practices on health outcomes, and therefore also on work patterns is necessary. The strengthening of the "poverty trap" may however be anticipated as time and scarce resources are spent in the constant search for affordable health care, and individuals become debilitated or hampered by the effects of chronic diseases [See Box 5.2].

As is the case in most other countries – there would also appear to be a noticeable gender differential: even though the life expectancy of females are greater than that of males, the very limited available morbidity information does indicate that they are more likely to suffer from non-communicable chronic diseases such as hypertension, diabetes mellitus and heart disease. The potential consequences for effective and productive participation in the labour force needs to be more fully investigated – especially in those communities where females have come to be the principal wage-earners.

Notwithstanding the prominence of non-communicable diseases, the continuing importance of acute respiratory infections, the increasing rates (in several countries) of gastroenteritis and foodborne illness, and the rapid rise in the incidence of HIV/AIDS all show that the health situation in the Caribbean is a very complex one. In all countries (for which data are available) except Dominica and St. Lucia, over the 1990-2000 period, the incidence of gastroenteritis continues to be at fairly high levels, and in most countries there have either been significant increases (see for example Antigua, and Grenada), or a fair amount of fluctuation. For example in St. Kitts, by the end of the 1990s the low rates of the mid 1990s had been reversed; and in St. Vincent and the Grenadines, the mid-1990s saw an increase – even though there is some evidence that in 1998 there may be return to the low rates achieved in the early 1990s.[3] With respect to HIV/AIDS and as already noted, the current adult prevalence rate of 1.96 now places the Caribbean region in second place behind sub-Saharan Africa. Further details on mortality rates and specific disease incidence are provid-

Box 5. 2
Qualitative case-study material St. Vincent and the Grenadines

Focus Group research on responses to the introduction of User-Fees in St. Vincent and The Grenadines have produced some insight into some of the difficulties faced by socio-economically disadvantaged persons who suffer from at least one non-communicable chronic disease (NCD). Some of the most important findings were that:

- Unemployment, loss of employment, and underemployment were frequently associated with chronic disease incidence;
- Illnesses were sometimes ignored as individuals "could not afford to be sick";
- The insufficiency of funds and other resources more often than not resulted in the following "coping strategies":
  - Skipping or staggering medication;
  - Delaying the search for care until there was little choice;
  - Where individuals suffered from more than one NCD, "negotiating" or the choice of medication with the least immediately threatening one given lower treatment priority.

(Lalta and Le Franc 2001)

ed in Tables 5.1-3. (Appendix II).

In a context of fiercely competing demands, health policy development in general, and the identification of priorities and intervention strategies in particular, are therefore very challenging exercises. The identification of priorities for the allocation of scarce resources can quickly become very difficult, and easily flounder in the face of pragmatic, ideological, political, and ethical considerations. Later on, the adequacy of the health resource situation will be discussed in greater detail; at this point it is important to emphasise the importance of access to the kinds of data and analyses that can assist the development of those policy choices. In particular, morbidity data that can provide a more accurate assessment of the real magnitude of the health burden need to be systematically developed and produced for all the Caribbean countries.

5.1. Premature Mortality

The determination of Years of Potential Life Lost [YPLL] due to mortality has been one useful way of assessing the extent of

Table 5.2a
Top ten causes of death (male) – indicated by rank

Cause of Death	Ant.[a]	B.V.I.[c]	Dom.[c]	Gren.[b]	Monts.[d]	St. Kitts[c]	St. Lucia[a]	S.V.G.[b]
Malignant Neoplasm	1	1	1	2	1	4	1	1
Cerebrovascular Disease	2	…	…	3	2	1	3	…
Pulmonary and Other								
Heart Disease	5	3	3	1	3	3	2	2
Ischaemic Heart Disease	4	4	…	…	…	2	…	…
Diabetes	3	…	4	…	4	…	…	3
Liver Disease	…	…	…	5	…	…	…	5
Homicides/Suicides	…	…	…	4	…	…	…	4
Hypertension	…	2	2	…	5	…	…	…
Acute Respiratory Disease	…	…	5	5	…	5	5	…
Accident Non-Vehicular	…	…	5	…	…	…	4	…

Table 5.2b
Top ten causes of death (female) – indicated by rank.

Cause of Death	Ant.[a]	B.V.I.[c]	Dom.[c]	Gren.[b]	Monts.[d]	St. Kitts[c]	St. Lucia[a]	S.V.G.[b]
Malignant Neoplasm	1	3	2	2	3	3	1	1
Cerebrovascular Disease	3	3	5	4	5	1	4	3
Pulmonary and Other								
Heart Disease	5	1	4	1	…		3	5
Ischaemic Heart Disease	4	1	…	…	4	2	5	…
Diabetes	2	…	3	…	2	…	2	2
Urinary Tract Disease	…	…	…	…	…	…	…	4
Homicides/Suicides	…	…	…	5	…	…	…	…
Hypertension	…	3	1	…	1	…	…	…
Acute Respiratory Disease	…	…	…	…	…	4	…	…
Septicaemia	…	…	…	3	…	5	…	…

Source: CAREC data-base Website: www.carec.org. Last consulted: 23. Nov. 2001. a) 1999; b) 2000; c) 1995; d) 1994

the burden of ill health and disease on a society. This has been done for the OECS countries, and the data are presented in Table 5.1. These are compared with the Life Expectancy figures of the countries. Using YPLL does somewhat alter the country rankings from that obtained with the use of Life Expectancy data. Some of the same countries – for example, St. Lucia, and St. Kitts-Nevis still cluster at the lower end of the scales (that is, lower Life Expectancy and higher YPLLs), and Dominica is still to be found at the mid-point. However, the rank positions for Grenada and St. Vincent and the Grenadines improve somewhat, and that of Montserrat falls. The situation in Montserrat may be a peculiar one – given the series of natural disasters experienced over the past 8-10 years. Thus for example the percentage of YPLLs lost in the 25-44 year age group is extra-ordinarily high (44%) in comparison with an average of 27% in the other seven countries for which the data are available (See Table 5.4 Appendix II). The British Virgin Islands and Antigua are still to be found at the higher end of the spectrum.

The value added by using YPLL is that by assessing the impact of mortality in terms of pre-mature deaths, it can identify the contribution of the deaths in specific age groups to the total mortality picture; and it can also help to isolate the impact of different types of disease, and to therefore draw attention to the types of illnesses (especially those with greatest impact on the very young) that continue to burden the health system and the society in general. It therefore also helps to highlight some of the weaker areas in the health status of the population. Comparison of the available regional data shows that in terms of the ratio of years of YPLL to total deaths, the percentage of YPLL in children under 5 years old, and the percentage of YPLL due to infections intestinal diseases, the English-speaking Caribbean compares favourably with most of the rest of the Latin and American region, but still lags behind North America.

Decreases in YPPL may of course be due to a changing population structure – specifically the aging of the population – but declines will also be related to improvements in the quality and coverage of the health care systems. The decreases in the YPLL due to diabetes mellitus and infectious intestinal diseases may then be related to the advances in the health care systems within the region. Since infectious intestinal diseases are also related to poverty, decreases here may also be related to improvements in the material conditions of existence. It is of interest to note that notwithstanding the fact that the life expectancies in the region are approaching those in North America, and non-communicable diseases are – again like North America – the principal causes of mortality, the contribution of these types of diseases to YPLL is still much less for the region as a whole. Thus for example the leading cause of death in North America – malignant neoplasms – account for 21.5% of the YPLL, but only 8.2% in the English-speaking Caribbean where it is the second top cause of mortality. While the very young and the very old are normally expected to have the highest mortality rates, medical and social advances have been expected to significantly reduce the mortality rates of the very young to acceptable minimums. The success of the immunisation programmes is clearly evident in the reduction in the mortality rates observed in the post -war period. However, the YPLL

from "Conditions originating in the perinatal period" for the English-speaking Caribbean accounts for 13% of the total YPLL, (a figure that is fairly similar to those found in the rest of the Latin American and Caribbean region) while the comparative proportion for North America is 5%; further, the percentage of the YPLL that is attributable to "Intestinal infections diseases stands at 4% in the English-speaking region, but does not even appear in the top ten causes for North America (and must therefore be less than 2%). When considered together, it should then be clear that there is still room for improvement in the Caribbean.

Looking more specifically at the YPLLs calculated for the individual OECS countries for which data were available shows that mortality in the youngest age group continues to account for a significant, and unacceptable high proportion of the years lost prematurely. First of all, with the exception of Montserrat, (where the age structure of the population is more heavily weighed towards the older age group), in all instances the percentage of YPLL lost in children under 5 years of age is greater that 27%, and in three of them (Anguilla, Antigua-Barbuda, and the British Virgin Islands) the percentage is over 50%. This should be compared with the percentage of 14% in North America. The regional average for the English-speaking Caribbean is 30%. Secondly, in some instances (Anguilla, the British Virgin Islands, Dominica, Grenada) the percentage of YPLL lost in children under 5 years old is as much as or even greater than that lost in the 25-44 year age group. [See Table 5.4, Appendix II]. Finally here, it may be noted that in the Latin America and the Caribbean region "Difficult access to drinking water, poor sanitation conditions" and "malnutrition" account for the largest number of years of potential life lost, as well as of the DALYs (Disability Adjusted Life Years).[4]

All of this would seem to support the argument that there needs to be a closer examination of the possible relationships between maternal and child health status, child development, poverty and the health care system. In this regard, it is useful to again draw attention to the high rates for "Conditions originating in the Perinatal Period". The number of deaths attributed to "ill-defined" causes is also unacceptably high. Later on, possible associations with variations in socio-economic status and/or with economic performance in and of these countries will also be examined. It must be emphasised however that the insufficiency of the data is such that at this point questions can only be raised and possible problem areas identified. More robust time series are required if any more definitive conclusions are to be drawn.

5.2. Poverty and Health

As noted earlier there is now overwhelming evidence from other countries of a significant relationship between low socio-economic status and poor health. Although the examination of the impact of socio-economic factors on health is still in its infancy in the Caribbean region, there is nevertheless some evidence that such a relationship is also to be found in the region. Unfortunately, however, within the region the data are inconclusive, and considerably more work needs to be done to accurately and robustly map the dynamics of such a relationship.

Certainly, the levels of general poverty in the region are unacceptably high - ranging from 19% in St. Lucia, to 33% in St. Vincent and the Grenadines. In

Chapters 2 and 3 the high levels of unemployment and income inadequacy were also discussed. In Chapter 6 the question of poverty is also discussed at greater length. Since adequate nutrition is necessary for maintaining good health, food intake level may also be used as one sensitive indicator of serious poverty; individuals unable to maintain even the basic levels of subsistence are unlikely to be able effectively function in any other sphere of existence. Trend data [See Table 5.5, Appendix II] on food security levels for the region show significant improvement over the 1961- 1998 period. However, accepting the recommendation of the Caribbean Food and Nutrition Institute's recommendation for a minimum daily intake of approximately 2400 calories, it may be seen that while most countries could at least supply that level by 1990, there is at least one country (Antigua and Barbuda) still below the desired level of supply, and some [Grenada, and St. Vincent and the Grenadines] that could be described as borderline cases. These aggregate figures do not portray the within-country variations; but for some countries specific survey data further show that although the levels of food poverty found are usually much lower than general poverty levels, there is nonetheless cause for concern: in some countries such as St. Vincent and the Grenadines, the proportion falling below the food poverty (defined as the non-consumption of the recommended minimum calorie intake) line is as high as 28%. [See Table 6.1 (a-c), Appendix II for further details].

Notwithstanding these high poverty levels and the high levels of unemployment described earlier, the data on the relationship between poverty and health status nevertheless remain inconclusive and insufficient. Two health indicators that have traditionally been utilised to indicate levels of human development because of their well-documented sensitivity to variations in socio-economic status are infant mortality rates [IMRs] and low birth weights [LBWs].

5.2.1. Low Birth Weight

Low birth weights, in particular, have acquired increasing importance as it has been found that not only is it a good indicator of poverty status, but there is further evidence that superior health and medical facilities may not be sufficient to overcome the negative impacts of socio-economic factors. In the OECS region, available data suggest that there has been an improvement over the 1990-98 period. Certainly, the region compares favourably with other middle-income countries [See Table 5.1 & Box 5.3], even though in some instances the proportions (ranging from 6.3% to 11%) are above those found in developed countries.[5] These may be compared with an average of 8.7% for other middle-income countries and 7% for the USA and the UK. Data showing the within-country variations across socio-economic groupings are not currently available. Certainly since the early 1990s almost all countries have shown improved ratios: at that time these ranged from 9-13%. It is important to be able to determine the extent to which the poor have been a part of these improvements. It is of some note that St. Kitts, which has one of the highest poverty rates has shown little movement; while in St. Vincent, between 1999-2000 the proportion almost doubled - moving from 3.4% to 6.3%.

Even so, aggregate data show no immediately obvious association between standard economic performance data

Box 5.3
Low birth weights, per capita income and poverty level – selected countries

Country	Real GDP Per capita (US$)	LBW (%) l.b.	Poverty Rate (%)++
Antigua	6288	6.4[a]	…
Dominica	2185	8.1[a]	33
Grenada	2428	9.2[b]	32
St. Kitts	4865	11.1[a]	31
St. Lucia	2816	…	19
St. Vincent	2009	6.3[a]	33

++ Adapted from KAIRI Consultants – various years; UNECLAC, 1999.
Sources: ECCB; Ministry of Health files
NB: - LBW and GDP Per capita are for the same period:- 1999-2000: a) 2000; b) 1999
- Poverty rates are those provided for the year of the survey: these range from 1995-1999.

(GDP per capita), poverty level, and LBWs. It is intriguing that the country with the highest LBW figure (St. Kitts) also has the second highest GDP per capita, the highest per capita consumption, and one of the highest poverty levels.

More complete and accurate data are essential. A sensitive portrayal of the socio-economic situation and a reasonably precise determination of the nature and extent of the policy issues involved require more extensive data and more disaggregated data. There is need for an understanding of the extent to which the observed levels, variations and apparent increases in the data are real, or are mere fiats of the quality and (in)efficiency of reporting practices.[6] In this connection, the prominence in almost all of the countries of "Conditions Originating in the Perinatal Period" [a problem related to inadequate maternal care and socio-economic conditions] as a cause of mortality could be one indication of the need to get a clear assessment of the reality. In the six countries for which there are data, this problem is among the top 10 causes of mortality; in three of the countries it is found among the top 5 causes for females, and for males this is the case for two countries [Tables 5.2a and 5.2b]. Certainly, the significant improvements in child health that have occurred over the past 20-30 years can – at least partially - be explained by central importance given to maternal and child care in the community and primary health care systems that have been established in most of the OECS countries. However, these data do suggest that closer examination and a disaggregation of the experiences would be very useful. At the same time, attempts to separate the influences of service quality from those of the surrounding socio-economic environment can only enhance service development, and the efficacy of health promotion initiatives.

On the other hand, if indeed the apparent absence of a linkage between poverty and poor health in countries such as Dominica and St. Vincent and the Grenadines means that they may have found ways to break the linkage between poverty and some of its consequences, then it is important to be able to identify and describe the methods and strategies used so that valuable lessons could be shared. In the final analysis, it does seem necessary to raise questions about the extent to which apparently high or rising consumption levels in the Caribbean may be used as indicators of changing levels of human development. In this regard, it would seem important to further explore, and therefore better understand, the relationships between types of consumption expenditures (for example on consumer durables), and

changes in social and human welfare, and to do so for different socio-economic groupings.

5.2.2. Infant Mortality Rates

Further support for the call for more rigourous examination of these issues and problems is also provided by the data on IMRs. In Table 5.1, and Table 5.5 Appendix II it will be seen that in most OECS countries the rates are now at fairly reasonable levels - especially those found in other middle- income countries. They are nevertheless well above the rates (that is 4-6 deaths per 1000 live births) found in most developed countries. It may also be seen that over the 1980-1999 period the trend has been generally been downward.. Also, in most of the other countries the rates have fluctuated quite considerably.[7] These fluctuations could be a reflection of methodological problems associated with the calculation of rates based on small size populations, or other data reporting issues. On the other hand, these trends suggest that it is perhaps important to seek to identify those factors that could account for not only any of the rate increases observed, but even more important, for the possibility that the improvements being made may not always be easily sustainable.

5.2.3. Poverty Status and Health

Turning to the specific relationship between poverty and health status the inconclusiveness of available evidence is even more apparent; so too is the difficulty in drawing conclusions about the level and progress in human development. In the four countries for which data are available: namely, Grenada, St. Kitts, St. Lucia, and St. Vincent and the Grenadines, with the exception of St. Lucia where the rate stood at 19%, the poverty levels are all very high - being in excess of 30% [see Box 5.3] Yet in all of these countries the poor were less likely to report an illness. Further, regressions analyses for Grenada, and St. Lucia show that the incidence of food poverty is not able to predict reported health status. Other variables normally expected to influence health status are indeed significantly related. These include

- geographical location – where those in rural areas are more likely to report an illness;
- age – the older the person the more likely will there be reports of illness;
- gender – females report more illnesses;
- and years of schooling – the higher the level of education the lower the incidence of illness.[8]

Why these findings – that is the absence of a significant relationship between poverty and health - should be so contrary to those obtained from almost every other country in which similar analyses have been conducted is not at all clear. In Jamaica where a similarly unusual relationship was found, closer examination has so far suggested that some disaggregation by type of illness (for example, chronic *versus* non-chronic) may be necessary. More importantly though, reporting practices may need to be investigated, and the usefulness and validity of purely consumption-based poverty assessments should be carefully examined. Data from Jamaica, as well as qualitative data and key informant information from countries in the OECS region [See Box 5.1], suggest that perceptions of illness and search for care patterns – which are themselves affected by socio-economic status – could perhaps help to account for these unexpected patterns. In other words, the poor may be unwilling and/or unable to recognise the onset of illnesses until the prob-

lem is clearly apparent. There is in fact, some evidence that in the Caribbean and other countries the poor are less likely to search for care, one consequence of which may be the higher hospitalisation rates also found among the poor in the Caribbean.

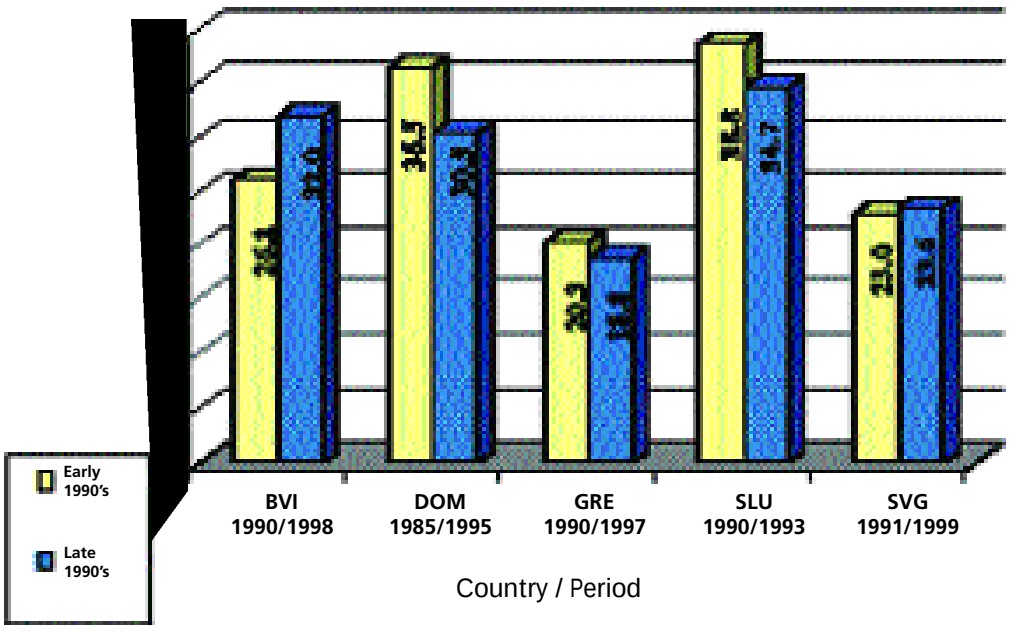
Considerably more work is required if the precise pathways between socio-economic condition, health status, and health care are to be identified for the Caribbean region. It may also be that the consumption data being collected and used as a proxy for income levels and level of socio-economic well-being need to be more sensitive to the existence and possible efficiency of coping mechanisms among the poor. Good health policy formulation and the development of adequate health promotion initiatives require more clarity and accuracy in these kinds of data and information. Successfully addressing improper and deleterious health and illness management practices (at least at the individual level, and including dietary patterns) can help to reduce the total health burden, and therefore also the burden of poor health on economic development.

6. Health and Economic Development

A clearer pattern emerges when the relationships between health and economic status and development are examined. The relationship between the health of citizens and growth was examined by regressing the growth rate of real per capita GDP on real gross capital formation as a percent of GDP, inflation, population density and life expectancy See [Table 5.6 (a), Appendix II]. The results from this exercise indicated that life expectancy, an indicator of the health of citizens, had a positive and significant impact on real per capita growth. Moreover, it was found that for every unit change in average life expectancy real GDP growth would increase by 0.4 of a percentage point.

The relationship between productivity and health was also examined using a similar regression framework as that provided above. Productivity was regressed

Chart 5.3
Recurrent health expenditure allocated to primary health care for selected OECS countries - Percentage of total health care



Box 5.4
Government health expenditure as a % of total expenditure, selected countries – actual expenditures

Year	B.V.I.	Dominica.	Grenada	Mont.	St.Kitts	S.T.L	S.V.G.
1990	8.9	9.2	14.8[b]	15.0	8.3	11.7	…
1993	6.8	11.0	12.7	…	8.9	12.9	11.9
1995	7.9	13.9	10.9	33.6	7.6	13.3	11.5
1997	7.4	…	12.5	…	8.0	…	10.4
1999	7.4[a]	…	9.6	…	8.9	11.9[c]	12.0

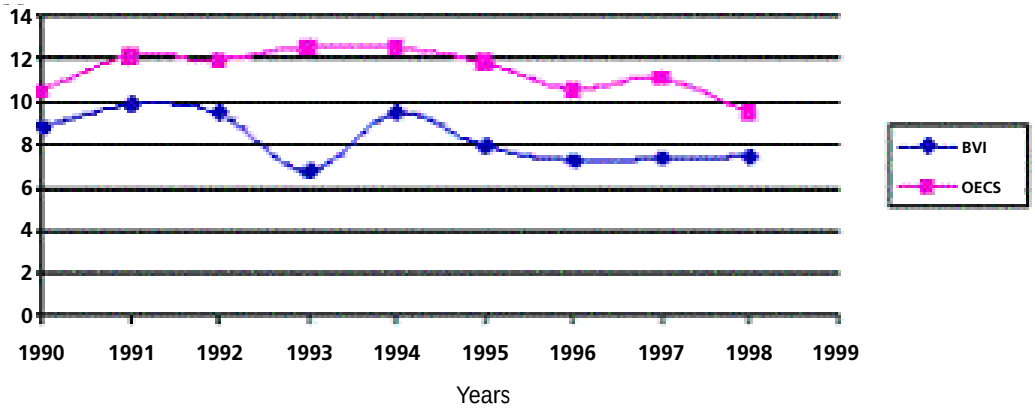
a) 1998; b) 1991; c) Estimate

on real gross capital formation as a percent of GDP, inflation, population density and life expectancy. Again these results indicated that average life expectancy had a positive influence on productivity growth. This result implies that if a country focuses on improving the health of its citizens then it can expect to experience higher rates of productivity growth [See Table 5.6b, Appendix II].

7. Health Expenditure Patterns

As noted earlier, almost all Caribbean governments have endeavoured to maintain health expenditure levels. Two conclusions may however be drawn from an examination of the available data showing the trends in health expenditure over the 1985-1999 period [Caribbean Development Bank 2000b; See also Box 5.4, and Table 5.7, Appendix II]. The first is that although a first examination of the Expenditure Estimates would suggest some success in maintaining the levels of health expenditure, there is some variation, and a more detailed disaggregation which allows a comparison of Actual and Estimated Expenditures, as well of recurrent and capital expenditure patterns induces a more cautious observation. Thus for example, over the 1985-98 period while the shortfall of actual recurrent expenditure in relation to the estimates rarely exceeds 15% some fluctuation may be seen in countries such as Grenada, St. Kitts-Nevis and St. Vincent and the Grenadines. This more stable pattern may be expected, as wages and salaries largely account for this type of expenditure. On the other hand, that report showed that the shortfalls in capital expenditures have been significant and highly variable - ranging from a low of 21.91% in (Grenada 1993) to a high of 90.9% in St. Kitts (1998), and 97% in Montserrat (1992); also over this period, the average annual shortfalls in Dominica and St. Kitts were 67.4%, and 56.2%, respectively. This volatility in expenditure may also be compared with the relatively steady growth rates in the USA and other developed countries. Wide fluctuations can some times be explained by sharp increases in capital expenditures (eg. to finance the one-off construction of a large medical facility). However, (and secondly), it may be noted that the wide fluctuations and shortfalls tend to be higher in the social versus non-social sector expenditure, and may be assumed to have been unplanned – in that the proposed expenditures had been budgeted in the official estimates. The important point

Chart 5.2
Health expenditure British Virgin Islands versus selected OECS territories



here is that this kind of volatility can easily undermine the capacity to sustain good health and health care systems.

Conclusion: Sustaining Good Health

From the preceding sections, it is possible to conclude that good health and well-being are significantly associated with economic well-being and development. Maintaining the capacity to participate in the economic environment therefore requires that the circumstances necessary for maintaining good health are developed and sustained. Historically, it has been felt that an adequate supply of good quality health services and facilities would be sufficient to ensure the maintenance of good health status. In this connection, measurement of health sector capacity and effectiveness has up until now focussed a great deal of attention on the health worker: population ratios, and on the proportion of total expenditures going to the health sector. While important, there is nevertheless growing evidence that expenditure levels – and increases therein - may not necessarily guarantee improved health status, or reductions in health inequalities. Of considerably greater importance may be the uses to which the allocated monies have been put. In this regard the OECS countries need to focus more energies and resources on the provision of quality care within the primary health and public health care systems.

The health system is a complex one in that communicable diseases, as well as the non-communicable chronic diseases continue to impose heavy disease burdens. Put another way, while the mortality burden of non-communicable diseases in the older age groups grows, that brought about by premature and preventable death in the younger age groups continues to be fairly heavy. In other words, there is little evidence of a simple or clear-cut epidemiological transition: this then poses serious challenges for the most efficient use of the limited resources available for use in the health sector. At the same time, as the strong influence of socio-economic variables has become clear, more attention must be given to those that pose serious risk for poor health, and to the relative contributions of these factors. The high levels of poverty (including food poverty, in some instances), income inadequacy, and the related characteristics such as inadequate sanitation facilities, and overcrowding

may all be expected to influence health status not only because of the limits imposed on the ability to acquire the resources needed to sustain good health, but also through the possible constraints on the pursuit of efficient and effective health management practices. In this regard, due attention must be paid to occupational health and safety of workers generally. Legislation should be reviewed, enacted and enforced to protect workers who may become victims of occupational hazards that can negatively impact on their health and well-being. The issue of compensation for loss of life and limb needs to be addressed.

In the next chapter a more detailed examination of the social conditions of existence – including those that may be expected to influence health status – is undertaken. The analysis and discussion is also intended to assist the identification of those factors necessary for maintaining some resilience and sustainability in health and economic well-being.

Endnotes

1 For a useful review of some of the material on socio-economic status and health see PAHO 2001.

2 The YPLL measure is used to emphasise premature mortality by estimating the average time a person would have lived had s/he not died prematurely [Public Health Reports 1998:55]. In the Caribbean, the cut-off age used is 65 yrs: this is based on the average life-expectancy for the OECS region. In recent World Bank and WHO publications, DALY's or DALE's have been the preferred indicator, but in countries such as the OECS where the necessary morbidity data are absent, it is impossible to carry out the required calculations for the individual countries.

3 One can only speculate about the possible reasons for these variations. Thus for example, the high poverty levels in St. Vincent and the Grenadines, Dominica, and St. Kitts-Nevis – (that is, regardless of any differences in the quality of the health care system) - may well be associated with the high IMRs found there. However, in the absence of scientific comparative studies, no firm conclusions may be drawn.

4 Country-specific data on the impact of these health risk factors on YPLL and DALYs are not currently available.

5 With rates of 4% in countries with widely differing health profiles, and as economically disparate as are Belize, Scandinavia and Spain, it would seem necessary to look more closely at the reality of the country reporting situations.

6 One exception was St. Vincent and the Grenadines where the only significant variable was gender.

7 These fluctuations are sufficiently wide as to suggest that the problem may not just be related to the known methodological problems of calculating percentages and rates with small numbers. The possibility of a reporting problem must however be recognised.

8 It must however be noted that with response rates as high as 40% on several of the health questions, the data must in any event be treated cautiously. In addition, it may be that the reference period being used is too short.

CHAPTER SIX

Social conditions of existence - securing social well-being and safe environment

THE REALITY & DANGERS OF A "POVERTY TRAP"...WHERE THERE IS AN ALMOST INEVITABLE & INVARIABLE CLUSTERING OF POOR HEALTH, INADEQUATE LEVELS OF EDUCATIONAL ATTAINMENT, UNSATISFACTORY MATERIAL CONDITIONS OF EXISTENCE, AND UNSAFE PHYSICAL ENVIRONMENTS, EACH REINFORCES THE OTHER AND INDIVIDUALS FIND IT VERY DIFFICULT TO ESCAPE WHAT HAS COME TO BE A VICIOUS CIRCLE

The material and discussions in the preceding chapters illustrate the reality and dangers of a "poverty trap". In such a situation where there is an almost inevitable and invariable clustering of poor health, inadequate levels of educational attainment, unsatisfactory material conditions of existence, and unsafe physical environments, each reinforces the other and individuals find it very difficult to escape what has come to be a vicious circle. Building and expanding the resources for effectively competing in the global environment therefore becomes problematic. The 1995 Declaration and Programme of Action of the World Social Summit in Copenhagen represented an important landmark in the growing recognition of the critical importance of social development and social justice in helping to break this circle. Sections 6 and 7 affirm that:

> Economic development and social development and environmental protection are interdependent and mutually reinforcing components of sustainable development….in both economic and social terms the most productive policies and investments are those that empower people to maximise their capacities, resources and opportunities.

1. Individual and Social Poverty

Throughout this Report the subject of poverty has been a recurring topic; not only is it necessary to recognise its heavy drag on any developmental process, but it may also be used as an indicator of the levels of human development in a society. It is important to identify the two dimensions of poverty: that is, social poverty, and individual poverty. While the latter focuses on the situation of the individual, the former seeks to describe the social and infrastructural environments. Certainly more often than not the two go together, and will help to cause the other. It is an analytical but necessary distinction that however needs to be made. Individual poverty can, and frequently does, exist in a socially non-poor context,

the reduction of social poverty may not automatically mean the reduction of individual poverty, and individual poverty may be tackled without seriously addressing social poverty. The organic linkages between the two should therefore be understood and mapped if general poverty is to be successfully reduced, and the levels of development improved.

In earlier chapters the levels of poverty in the Caribbean region were described. From bivariate and multivariate analyses of available data some of the social and material factors and conditions associated with the individual poverty were identified. Without necessarily implying that these are the principal causes of poverty, their identification should nevertheless facilitate the formulation of appropriate policy response and targeting. Poverty in the OECS may then be described in the following ways:

1.1. Poverty is largely an agricultural problem

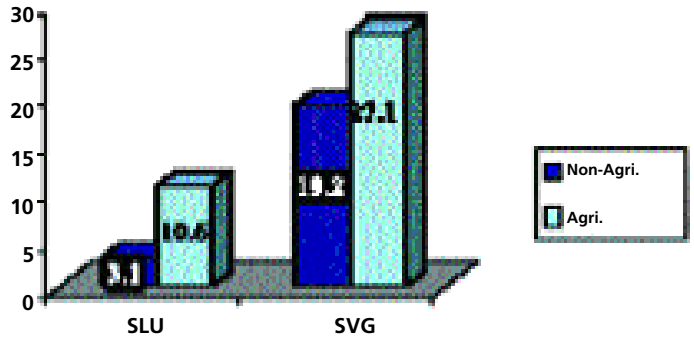
A breakdown by geographical area shows that in all the countries surveyed poverty levels in the rural areas are invariably higher than those in the urban areas [Table 6.1 (a-c), Appendix II]. Looking specifically at the resource-defined poverty line the level of poverty is almost three times that found in the urban area. The main implication of this is that the higher

Box 6.1
Distribution of poor and non-poor by sector of employment and geographic area – St. Lucia, St. Vincent, St. Kitts

Geographical Area/ Sector of Employment	Socio-Economic Status: Poor (%)	Poor and Non-poor (%)	Non-Poor (%)
		Urban	
Agriculture and Forestry			
St. Lucia	13.6	86.4	7.1
St. Vincent	47.4	52.6	7.5
St. Kitts	3.1	96.9	5.8
Non-Agriculture			
St. Lucia	6.3	93.7	92.9
St. Vincent	24.2	68.4	92.5
St. Kitts	6.1	93.9	94.2
		Rural	
Agriculture/Forestry			
St. Lucia	21.0	79.0	23.2
St. Vincent	31.6	68.4	37.5
St. Kitts	14.8	85.2	12.0
Non-Agriculture			
St. Lucia	12.4	87.6	76.8
St. Vincent	23.2	76.8	62.5
St. Kitts	7.1	92.9	88.0

Source: Caribbean Development Bank, 2000 – Adapted from KAIRI Consultants Country Poverty Assessments Data, 1996-2000

Chart 6.1
Percentage food poverty in agriculture and non- agriculture sector



Country

levels found in the rural areas are no doubt related to the disadvantaged structural location currently occupied by the agricultural sector in almost all of the OECS countries. The low levels of skill required by that sector at its current level of development, and the associated low levels of remuneration then help to explain the high poverty levels found here. More detailed examination of data available for three OECS countries – St. Kitts, St. Lucia, and St. Vincent and the Grenadines [See Box 6.1] clearly illustrates the higher levels of poverty in the agricultural sector.

It must also be of concern that the levels of Food Poverty are also much higher in the rural areas in general, and in the agricultural areas in particular. The cases of St. Lucia and St. Vincent and the Grenadines – where the levels of poverty are fairly different – illustrate the gravity of the problem [See Chart 6.1]. This condition could mean one or both of two things. One is that since agricultural production is heavily market-oriented (with correspondingly relatively little focus on production for subsistence needs), if the proceeds from commercial sale are insufficient to purchase the foods necessary for subsistence needs, then there is likely to be a food adequacy problem. The other is that the levels of production (for the market as well as for subsistence needs) are, in any event, low in an absolute sense. In this regard, the declines and difficulties experienced in the banana industry in the Windward Islands over the past 10 years will clearly have very serious implications for the present and future well-being of this segment of the population. It is clear that poverty reduction in the rural area must be tightly integrated into strategies for advancing economic development and growth in and of the agricultural sector in general, and, in particular, the banana sector .

1.2. Poor households are likely to be larger than non-poor households

Household size in the poorest two quintiles averages at around four to six persons, while in the two top quintiles it is two to three persons. In addition, the dependency ratio (young and elderly) tends to be higher in poor households [See Table 6.2, Appendix II]. Thus for example, in Grenada it is 0.56 for those

below the General poverty line, in comparison with 0.48 for those above the line. The pattern is similar for all other OECS countries for which data are available. Poor households are also more likely to contain different generations of persons thus indicating the likelihood of an intergenerational transfer of poverty.

Appropriate policy formulation in relation to this issue does however need to be better informed about the direction of causation. At the present time it is not known if household size is the cause, or a consequence of poverty. In the former instance, the large household could be draining the household's limited resources; in the latter, increasing the size could be a coping strategy of the poor, as individuals seek to enlarge the resource pool available to the household. In this connection it is interesting to note that in St. Lucia the household adult employment ratio (that is, the number of adults employed per household) seemed to be especially significant for the poverty status of that household; that is, the larger the number of adults in the household, the lower the poverty status. Nevertheless, the pattern is not consistent across the region and more investigation and analysis are needed to determine why variables such as this one may assume greater importance in some countries and not in others – even though the macro social and economic indicators are broadly similar.

1.3. Youth poverty rates are generally only slightly higher than overall poverty rates

For some measures and in some of the countries, the youth poverty rates are the same as those for the overall rates. This is surprising given the relatively higher unemployment rates found among the youth [See discussion in Chapter 3]. Further investigation is required; it is especially important to determine the trends in, and dynamics of the intergenerational transfer of poverty, and also to be able to identify those factors that enabled any escape from poverty. In this connection, education has long been the favoured and traditionally expected route. However when the levels of educational attainment of the youth is compared with that of their elders, and with their varying locations on the poverty spectrum, the contribution of education does not appear to be as significant as might be desired [See discussion in Chapter 4].

1.4. Gender gaps

Regardless of the type and/or level of index used there were noticeable gender gaps, and in most instances, female-headed households were more likely to fall below the poverty lines. The gender gap also usually seemed to be wider in the urban areas. However, the patterns are neither consistent nor easily explained, and there are several instances when the gap is in fact in favour of females.

From regression analyses carried out, it could be deduced that in almost all the countries, the gender of the household head is not significantly associated with the poverty level, and that any gender gaps will need to be explained by factors other than gender itself.[1] If indeed there is no significant gender differential in this area, then it may be that the policy discourse ought to be more focussed on the character, implications, and possible consequences of gender relations in the region. There is some evidence that levels of gender-based violence and conflict – inside as well as outside the household - are very high (See Box 6.2]. It would

Box 6.2
Gender-based violence in the Caribbean

A recent review of gender-based violence in the Caribbean (UNIFEM 2000) concluded that:

- Levels of gender-based violence and it intergenerational transfer are high;
- There is a high coincidence of, or association between adult and child abuse;
- There is high level of tolerance (not to be equated with acceptance) of abuse; frequently this was the principal form of interpersonal communication;
- The competition between the genders is not only very strong, but is commonly seen as a zero-sum game;

It would therefore seem necessary to explore

a) the possible linkages between the continuing strength of patriarchal ideologies, that are without the infrastructure of resources and capabilities normally required to adequately support them, and the anxieties, rigidities and intolerance frequently found in gender relations; and

b) the possible impact of the dissonance in gender values and expectations on the management of gender relations in the domestic and work environments.

therefore be useful to seek to determine the possible impacts on performance, productive working relationships and mobility patterns in the workplace.

1.5. Poverty and Education

The linkage between poverty and inadequate and/or insufficient educational attainment – mentioned above and more exhaustively discussed in Chapter 4 - has obvious implications for the availability of human resources – in terms of both quantum and range - that could support the countries' attempts to compete in ways that could contribute to growth and development. Within the region, the average years of schooling do not normally exceed 11 years, and those in the poorest groups normally experience only eight to nine years of schooling. The low level of human capital development here can be further illustrated by the fact that approximately three-quarters of the poor do not go beyond primary school; they are less likely to have any formal certification or finish high school; they have higher rates of absenteeism; and they tend to be virtually excluded from university level education. More resources, a better spread of the resources, greater variety and flexibility in the educational product offered, and better and more functional linkages with the labour market are all necessary if the human capital development considered to be so critical.

1.6. Poverty and the Labour Market

Analyses of the relationships between occupation, labour market participation, and poverty confirm the central importance of the human capital variable in the close linkage between poverty and the labour market. The poverty experienced by some individuals - whether in the form of resources unavailability, dis-empowerment, or deprivation can usually be related to their status in the labour market. Apart from the small segment of the society able to derive income from the capital market, the income that the majority of the population will use to meet the basic necessities in life will be derived from the

THE LINKAGE BETWEEN POVERTY AND INADEQUATE AND/OR INSUFFICIENT EDUCATIONAL ATTAINMENT - HAS OBVIOUS IMPLICATIONS FOR THE AVAILABILITY OF HUMAN RESOURCES - IN TERMS OF BOTH QUANTUM AND RANGE - THAT COULD SUPPORT THE COUNTRIES' ATTEMPTS TO COMPETE IN WAYS THAT COULD CONTRIBUTE TO GROWTH AND DEVELOPMENT

THERE IS A REINFORCING SET OF INTER-RELATIONSHIPS: THE POVERTY TRAP EXISTS AT THE MACRO AND INDIVIDUAL MICRO LEVELS. TACKLING SOCIAL AND INDIVIDUAL POVERTY WILL THEREFORE REQUIRE INITIATIVES THAT CAN ADDRESS THE STRUCTURAL INADEQUACIES OF THE SOCIETY AND ECONOMY

sale of human capital. In the Caribbean, not surprisingly, the unemployed usually had higher poverty ratios than did the employed. Where structural adjustment or other macro-economic policies resulted in increases in unemployment – as for example in St. Lucia – the consequent rise in the incidence and severity of poverty can therefore be expected.

However, unemployment status only partly explains the levels and distribution of poverty. The "working poor" make up a significant segment of those below the poverty line; many of the poor are employed in the low-paying, low-skilled occupations in the private sector, and in the informal sector. In other words, there are real problems of labour market segmentation, and the non-availability of jobs outside of the low-skill and low paying sectors. Further, where poverty is concentrated in identifiable communities employment discrimination easily negates the possible influence of the actual level of education and skill; In respect of involvement in secondary (or more) occupational pursuits for the purpose of supplementing meager earnings, anecdotal and qualitative data suggest that this is quite extensive. To some extent this may help to account for a situation where the labour force participation rates among the poor are somewhat higher than those found among the non-poor, even though the unemployment rate for the poor is three times that of the non-poor. Much more quantitative data that can show the precise extent of this practice, and therefore also its real capacity to create economic opportunity are needed. Even while there is evidence of individual "over-employment", (also called moonlighting) in that many individuals find it necessary or pursue more than one economic activity in the search for income adequacy, anecdotal evidence as well as the very low returns obtained by the large numbers employed in the informal sector also suggest, the co-existence of high levels of "underemployment". Greater and more rational and productive use of the available labour is needed.[2]

In general, there appears to be a significant association between poverty, the level of education, and skill and type of occupation. There is therefore a reinforcing set of interrelationships: the nature of the economic activities in most of the countries in the OECS lends itself to low-skilled occupations, but the low human capital base makes it difficult for the poor to escape poverty. The poverty trap exists at the macro and individual micro levels. Tackling social and individual poverty will therefore require initiatives that can address the structural inadequacies of the society and economy.

1.7. Access to potable water and toilet facilities

Access to potable water and toilet facilities are normally used in assessments of the levels of human development. The available aggregate and survey data suggest high levels of adequacy. Well over 90% of the population has access to both types of facilities [See Tables 6.3 and 6.4, Appendix II]. Even so, there is still room for improvement if the overall levels of access in countries such as Grenada, Dominica, and St. Vincent are compared with that of some of the British dependencies like Montserrat. Disaggregating according to poverty status, available survey data [Grenada, St. Kitts-Nevis, St. Lucia, and St. Vincent and the Grenadines] also indicate high levels of adequacy: access to classifiable types of water and sanitation facilities normally exceeds 80%. Dominica – where 25.5%

of all household report access to no toilet facility whatsoever – lags far behind other OECS countries.

However, mere access does not address issues related to the quality, the facilities, nor the consistency of supply. Where sewage treatment facilities are not fully nor properly functional; where the flow of water may be frequently affected or interrupted by blocked drains, or water-lock-offs; and where access to a communal water facility only may be associated with inadequate and unhygienic storage facilities, it may be anticipated that the issue of quality is a significant one. In 1990, a series of environmental profiles conducted by the Caribbean Conservation Association concluded that, in all the OECS countries, there were very serious problems with the capacity for water collection and storage, and for the adequate management of all forms of waste. The situation found in Dominica appeared to be illustrative of that found in the other countries:

> In some communities, disease and other public health problems related to water supply, sewage disposal, and generally poor sanitation are significant particularly among children.

While anecdotal data and qualitative information from key informants in individual countries suggest that these continue to be real problems, there are currently no data that will provide accurate information on the current quality of supplies and facilities, or on any changes therein. To some extent the persistently high rates of communicable diseases such as gastroenteritis and other foodborne illnesses [See Table 5.3, Appendix II] could be taken as a "flag-raiser" in relation to the possible inadequacy of domestic environmental conditions. Another way of assessing the adequacy levels may be to examine official expenditures in this area. This is done , and there it will be seen that concerns about the quality of supply may be more than justified: in the few countries for which data are available, the stagnant or downward patterns would seem to suggest that the expenditures needed to overcome the many problems identified above may not be at the levels necessary.

Of special importance too, would be the distribution of types of supplies and facilities. Given the social association of pit-toilets with poor and low socio-economic status, the prestige attached to exclusive access to piped water into the house, and to kitchen facilities, a useful disaggregation would seem to be in terms of the use of pit toilets (communal or exclusive access) *versus* the use of water closets, and also in terms of private versus non-private piped water supplies. At the national level it will be seen that the households with access to within-household water closets range from a low of 33% in St. Vincent and the Grenadines, to a high of almost 90% in the British Virgin Islands. On average, just over one-half of the household had access to this type of facility. Exclusion of the British dependent territories reduces this average to 42%. With respect to the proportion of households with water supplies piped into the house, the range is from 40% in Grenada, Dominica and St. Vincent and the Grenadines, to a high of 74% in the British Virgin Islands. The regional average stands at just over 51%, and here again, exclusion of the British territories reduces the average by some five-percentage points. A significant proportion (approximately one-third) of households still depend on public/communal standpipes; at the same time some 40% of all (non-British) households have

access to pit toilets only, and in St. Vincent this proportion exceeds 60% [See Table 6.3, Appendix II].[3] Closer examination of data from the existing poverty assessments show the expected poor versus non-poor division: there is a 3:2 (5:3 in some instances) ratio in the poor: non-poor distribution of pit toilets. With respect to direct household water supply, the ratio ranges from a low of 1:1.04 in Grenada to a high of 1:2.17 in St. Lucia.

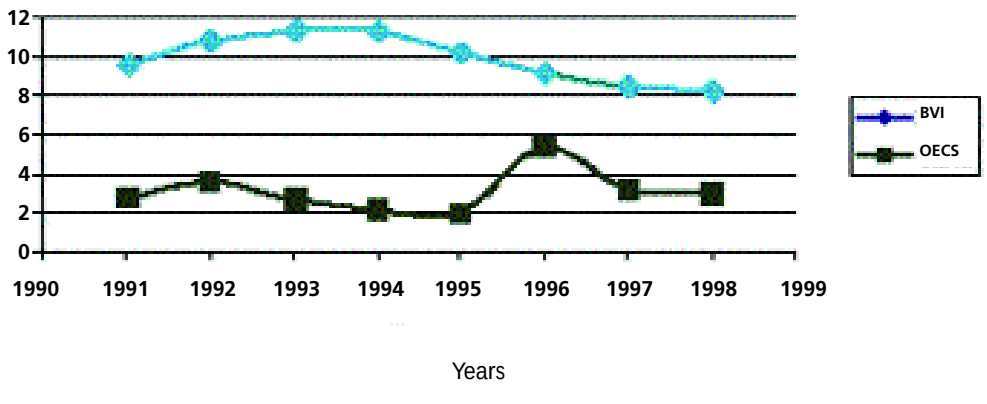
1.8. General housing conditions

There are currently no data on general housing conditions that could be used to indicate the levels and distribution of disadvantage in this area. Some conclusions may however be deduced from what is known about household composition and population. It is known that dependency ratios are generally high: these currently range from 46 per 1000 population in Antigua-Barbuda to 89 per 1000 population in Grenada. Comparable figures for the USA, UK and Other middle-income countries are 52, 54, and 61, respectively. A significant proportion [approximately 30-40%] of all households are headed by single females. It is also known that these tend to vary with poverty status. Thus, the poorer the household the larger it is, the higher will be the dependency ratio, and the greater the likelihood that it will be headed by a single female. In this connection, it is useful to examine the possible extent of overcrowding [defined as room occupancy of more than 2 persons] in the OECS countries. Unfortunately there is insufficient data on the region, but from what is available, it would appear that the level is highest in Dominica and Grenada, and lowest in Montserrat and Antigua (3-4%).

2. Problem of Clustering

The limited data that do exist indicate that there is a clustering of poor material conditions and well-being. The data in Box 6.3 illustrate a possible association between low income levels, rising or fluctuating IMRs and higher YPLLs, overcrowding, and inadequate sanitary facilities. Full time series data for all countries are needed to definitively illustrate the reality and strength of these associations in the OECS. But these relationships are not unexpected in light of the historical experiences of other countries; it does

Chart 6.2
Sanitation expenditure British Virgin Islands versus selected OECS territories



Souce: National Statistical Offices; National Ministries of Health

illustrate the broad burden of poverty, and underscores the importance of breaking the vicious circle at several points.

3. Social Investment Patterns

In light of the features of poverty described in the foregoing sections, it is clear that access to resources ranging from improved conditions of material existence to human capital development through education will be critical for the escape from poverty by any particular set of individuals. In other words, improving human development levels through the successful reduction of poverty will require initiatives that address both individual and social poverty. As already noted, the reduction of one does not automatically result in reduction of the other. This immediately becomes apparent if the various community development and poverty reduction initiatives implemented over the past 20-30 years in the region are examined. A recent review has shown that many poverty reduction programmes do focus attention on social poverty by seeking to improve physical and social infrastructures. Through the various social investment programmes monies are spent on roads, community infrastructure and facilities, water and sanitation projects, and on physical health and educational facilities. However, although comprehensive impact evaluations of the many initiatives have yet to be done, there is some evidence from that review that the impact and reach of these initiatives are both very limited: the total quantum of resources being applied is, on a *per capita* basis, very small, and the numbers benefiting are also relatively few. Greater success would seem to require not only considerably more resources than those currently devoted to these initiatives, but also less emphasis on a "welfarist approach" to social development, and less segregated and isolationist strategies. Thus for example, there need to be greater linkages between social programmes and other aspects of a country's economic development programmes; and much more integration between the social initiatives themselves.

In earlier chapters the inadequacy of the expenditures in the areas of health and education was discussed [See Tables 4.2 – Chapter 4; and Table 5.7, Appendix II]. In Box 6.4 the results of a similar kind of analysis are presented. The conclusions are essentially the same: recurrent expenditure – specifically wages and salaries – absorb the largest portion; expenditure levels tend to fluctuate, and frequently do not keep up with population growth.

Finally, expressed as a percentage of total expenditure, social investment (that is including water, sanitation, health and education) appears low, and remains some distance away from the targets set by the 20/20 target of the Oslo accord. A fairly recent review of social sector initiatives and of expenditures on Basic Social Services in the Caribbean (inclusive of the OECS subregion, and using the strict Oslo definition) similarly found that few countries came to the 20/20 target. A more detailed examination of expenditure patterns in the OECS countries also arrived at these conclusions. This UNICEF review found that:

> As many as five out of seven Governments withdraw from the national income far in excess of the recommended *25%* (the exception being Antigua and Barbuda, and Trinidad and Tobago), and it is estimated that the absorption is in excess of one

Box 6.3
Social and environmental hazard – the problem of clustering - selected countries

Country	Falling or Fluctuating IMR	YPLL[a]	Inadequate Water/ Sanitation[b]	Dep'ency Ratios (%)[c]	Over-crowding (% HH)	GDP Per Capita[d]
Antigua	No	4179	No	Low	4.2	6288
Dominica	Yes	6895	Yes	Avg.	10.9	2185
Grenada	Yes	6143	No/Yes	High	13.6	2428
St. Kitts	Yes	8070	Yes/No	High	…	4865
St. Lucia	Yes	12710	Yes	High	…	2816
SVG	Yes	6469	Yes	Low	…	2009

a) Per 100,000 population
b) Proportion of households with access to indoor toilet and water supplies is less than 50%.
c) Low = below Other middle income average (OMICA); Avg. = within 1-2 percentage points of OMICA; High = More than OMICA. OMICA average = 61.0
d) The average for the 1994-1999 period has been used. Currency US$
NB: Dates for which data are available vary. Figures for years within a 4-5 year time band (1994-1999) have been used.
Source: Social Development Unit OECS Secretariat; Chap 5 for the IMR and YPLL data - See Table 5.1 and 5.4 in Appendix II ; KAIRI country poverty Studies - St. Lucia - 1996; St. Vincent and the Grenadines - 1996; Grenada - 1998; St. Kitts-Nevis- 2000.

> third in the majority of the countries….[but] in spite of this…only in Grenada is Social Sector Expenditure in excess of the recommended percent. Only Dominica, and Antigua and Barbuda show a Human development Priority Ratio (basic social services expenditure) in line with the 50% norm. However, due to the low vote to social Sectors as a whole, Antigua and Barbuda and also Dominica fall short of the 20 percent Basic Social Service Mark, a result that is unfortunately shared by all the other countries.

One reason for the apparently "high" levels of expenditure may in fact bs related to the relatively large role of the governments in employment provision; in this connection, the large percentage of expenditures devoted to remuneration must be noted.[4]

In middle-income countries, the average expenditure level is approximately 49%. In this connection it should be noted that the proportions in the OECS are also at some considerable distance from those found in developed countries - where the proportion of the total budget expended on the social sector (that is, health, education, security, welfare, housing and community amenities) ranges from approximately 55% in the USA to 73% in France.

Certainly there is now a fair amount of evidence that high expenditure levels do not necessarily guarantee quality and/or adequate health care, educational facilities, nor efficient welfare systems. Of more importance would be the manner and areas in which the available resources are allocated. Nevertheless, low levels do indicate insufficiency; furthermore, it is unlikely that the wide fluctuations and the frequent budgetary shortfalls in capital expenditure observed can support or sustain the levels of, or steady improvements in, social and human development that are required for sustainable economic development. Certainly, serious questions may be raised about the extent to

which these expenditure levels have been able to significantly address or improve the problems identified by the environmental profiles.

4. Social Security

Development initiatives and programmes can be easily stymied and frustrated in socially and physically insecure or unsafe environments. In this regard, some of the OECS countries need to pay more attention and resources towards maintaining safer environments. Even though the absolute numbers remain low, in comparison to the USA and other middle-income countries such as Singapore and South Africa, crime rates (that is, crimes against the person and property) seem relatively high: St. Vincent, St. Kitts-Nevis, and St. Lucia would appear to be the most problematic. For crimes against property alone, BVI appears to have the highest rate (Table 6.1 opposite).

5. Environmental Safety

Turning to the matter of environmental safety and security there would appear to be a number of serious problems. The inadequacies in respect of water and sanitation were discussed earlier in this chapter. At a wider level, the preservation of the fragile ecosystem in these small island economies is critical not only for the sustenance of life there, but also because one of the major industries, namely: tourism, is heavily dependent on the preservation of the environment – even while it can at the same time be heavily destructive of it. A recent OECS Secretariat study highlights the peculiar environmental complexities of small island systems: problems can spread easily and rapidly because the environmental resources are under great pressure from development activities, and from additional factors such as steep slopes and rapid changes in topography, which create small scattered ecosystems, the small size of the ecosystems, the concentration of populations and activities in small areas, the high frequency of disasters, and the close coupling of ecosystems within a single watershed.

In small island ecosystems, there is therefore little margin for error; it is therefore especially important for there to be adequate and efficient management of the limited resources. Recent thinking on the relationship between economic development and the environment has re-emphasised the need for much greater attention and focus on the natural resources stock from which resource flows useful for livelihoods are derived, such as land, water, wildlife, diversity, and other environmental resources. This is

THERE IS NEED TO BE GREATER LINKAGE BETWEEN SOCIAL PROGRAMMES AND OTHER ASPECTS OF A COUNTRY'S ECONOMIC DEVELOPMENT PROGRAMMES; AND MUCH MORE INTEGRATION BETWEEN THE SOCIAL INITIATIVES THEMSELVES

Box 6.4
Percentage of recurrent gov't expenditure spent on water and sanitation – selected countries

Year	B.V.I.	Grenada	St. Kitts*	S.V.G.
1991	9.6	4.2	...	1.7
1993	11.3	1.0	...	1.6
1995	10.2	0.9	5.1	1.6
1997	8.5	1.9	6.8	1.2
1998	8.3	0.9	7.1	1.1

*** Figs for St. Kitts-Nevis are for Rec. & Capital Exp.**

Sources: National Estimates.

Table 6.1
Incidence of crime against the person, and property by country – 2000 (per 1000 population)

Country	Crimes Against the Person	Crimes Against Property
Antigua*	3	6
B.V.I.	20	50
Dominica**	7	19
Grenada	2	19
St. Kitts	5	47
St. Lucia	32	45
St. Vincent	23	47
USA***	13	45
Singapore***	0.2	4
South Africa***	20	43

* 1998 ** 1999 *** 1997

Sources: Government Statistical Offices

even more critical where and when there are rapid changes in the level and character of the competition for (or conflicts over) the use of existing resources.

There are several initiatives, at varying stages of implementation, to address these critical environmental issues. Watershed Management projects are being implemented with the objectives of rehabilitating the hydraulic systems of the countries; also, the development of a watershed management plans to enhance sustainable watershed development and to strengthen Governments' capacity in environmental management and flood preparedness. The implementation of the World Bank Solid Waste project and the environmental levy for its finance is another initiative to protect the natural environment. A comprehensive plan for coastal zone management has also been developed in conjunction with the OECS Natural Resource Management Unit; the introduction of measures aimed at protecting forestry resources are some of the other positive steps being taken by the authorities to try to preserve the environment.

Nevertheless, despite the progress made over the last decade or two [including that accomplished through the work of the OECS Natural Resources Management Unit] in strengthening the policy and institutional arrangements for natural resource planning and management, the environment in the sub-region continues to be seriously at risk. Unfortunately, in the OECS countries, there is little evidence that the problems identified by the Environmental Profiles have significantly changed. The most critical ones are:

- Insufficient capacity for the collection and storage of water;
- Insufficient protection of catchments and forest reserve areas;
- Increasing soil erosion;
- Threats to the water supply systems from the excessive use of herbicides and pesticides;
- Inadequate management of all forms of waste, and waste disposal systems;
- Diminishing wildlife populations; and
- Coastal/shoreline erosion

Further, there has been an increase in the frequency of natural hazards with consequences for the scale of reconstruction

Box 6.5

The OECS Enviromental Management Strategy

"To protect, conserve and enhance or restore, where appropriate, the quality and value of the region's natural resources in order to sustain social and economic development for present and future generations."

In spite of the critical importance of environmental quality to the OECS States, no regional strategy has previously been articulated to guide environmental management in the region.

Reasons for the declining level of environmental quality in the OECS States are varied, but include:

- Lack of awareness of the consequences of human activities on the environment and the extent to which economic activities depend on the environment.
- Limited data on which to base decisions affecting the environment.
- Disasters triggered by natural phenomena, but the extent of whose environmental impacts are a function of earlier environmentally inappropriate human activity.
- Desire for short-term financial benefits at the expense of greater longer term economic benefits.
- Inadequate integration of environmental costs into the economic and financial rationale for actions.

Human activity and behaviour are the common themes of these factors, at both the individual and societal levels. If initiatives to enhance environmental management are to be successful they must therefore target changed human activity and behaviour in the context of how those activities behaviours impact the environment. The challenge is great - but in all OECS countries a start has already been made to change environmentally damaging practices and based on the successes already achieved it is clear that a positive outcome is achievable.

The Strategy

The OECS Environmental Management Strategy is the framework through which the St. George's Declaration Of Principles For Environmental Sustainability in The OECS will be implemented. The Strategy summarises the urgent actions needed for sustainable natural resource management in the sub-region and is a planning document that will serve to guide the new and inter-sectoral actions required achieving sustainable development in the OECS. Furthermore, the Strategy summarises the views of key stakeholders, including representatives of community, national, regional and international groups. The Strategy:

- Introduces a national and regional approach to development planning
- Will assist the OECS sub-region in planning for and responding to environmental issues of common interest, including multilateral environmental agreements, and such other trans-boundary issues as oil spills, shipment of hazard wastes, etc.
- Allow for joint enforcement on a sub-regional basis.
- Foster collective thought and action on extra-regional trends, e.g. globalisation.
- Encourage pooling of intra-regional financial, human and other resources to achieve environmental management objectives.
- Foster joint negotiation and follow-up action on international environmental agreements and treaties.
- Foster linkages with other small-island groupings for the purpose of furthering common or complimentary objectives for environmental management.
- Promote harmonisation of national policy, legislation, capacity building and on the ground implementation with respect to environmental management.
- Promote the SIDS POA to the general public in the OECS sub-region.

The central challenge for the OECS Environmental Management Strategy is to catalyse tangible enhancements in environmental management in the OECS countries. Ultimately, however, the OECS Environmental Management Strategy will be successful only if, through implementing the measures it identifies, environmental considerations are routinely incorporated into decision-making at all levels and in all sectors.

thereby necessitated, but many of the "investment decisions – personally, sectorally and nationally [have also] increased the vulnerability and risk". But the effects of these disasters are often exacerbated by the vulnerability arising from settlement and by human activity and negligence. Storm water drains, which are not cleaned, and rivers, which are choked with sediment, hinder storm runoff; and hurricanes, storm surge, sea level rise and floods damage poorly sited and designed buildings and infrastructure.

All of these have obvious implications for the sustainability of a safe environment in general, and the quality of the systems intended for the support of healthy living. It is necessary to focus more attention on environmental issues, and to do so in ways that will fashion and support sustainable livelihoods for the various communities. Some of the specific proposals for action that have been highlighted in the Regional and National Environmental Action Plans include

- The establishment of a comprehensive system of environment law,
- The adoption of an integrated approach to the management of natural resources incorporating - watershed management, coastal zone management, marine resource management, solid waste management, liquid waste management, water resources and forestry resources;
- The use of energy-efficient and environmentally safe technologies;
- The design and implementation of hazard mitigation policies and plans; and
- Strengthening the capacity land use planning and development control agencies.

Several OECS States have taken steps to address the consequences of natural hazards and vulnerability caused by human action through disaster management projects. These projects entail the construction of physical infrastructure for soil and water retention, drainage systems, sea defences, land reclamation and rehabilitation; airport flood protection; community-based disaster management training; institutional strengthening (National Emergency Management Offices, Building Codes), and Strengthening Early Warning Systems. These activities are being implemented under the Emergency Recovery and Disaster Management Project that is funded in part by the World Bank. The CDB has also provided funding support for other disaster mitigation initiatives.

In sum, much greater attention needs to be paid to environmental issues – especially in terms of ensuring protection of the fragile ecosystem, improving the sensitivity to the carrying capacity of the islands, and maintaining its bio-diversity.

Conclusion: Achieving Sustainable Levels of Social Well-being

The gap between reality and desired state of affairs in achieving sustainable levels of social well-being is therefore significant. Successful competition in the international environment will require substantial progress in closing the gap. Maintaining a healthy population, reducing the level and distribution of social and individual poverty, and securing a safe environment are clearly critical and necessary if economic development is to move ahead at the pace and levels desired. Progress in these areas is also critical if the developments efforts are to be sustainable, and if the population is to develop any capacity for surviving and coping with external shocks. It seems clear that social and economic problems cluster – often times in a cause-and-effect manner – to an extent that requires multi-pronged intervention strategies. The

Endnotes

1 The problem may be methodological, or it may have to do with the possible existence of significant gender differences in the meaning, utility, or consequences of a given set of consumption expenditures. Other kinds of data – generated by gender-sensitive qualitative investigations - will be needed to resolve this matter.

2 In spite of the frequent assertions about the prevalence of underemployment, there are still no hard data on its extent and distribution.

3 Since these figures are "dated" in that they are from the various censuses conducted over the 1990-92 period, some improvements due to individual socio-economic mobility may have occurred.

4 See discussions in Chapters 4 & 5.

CHAPTER SEVEN

Building competitiveness - conclusions and policy recommendations

The challenges facing the countries in the OECS region are clear. All of these countries have long been closely intertwined with the structures and activities of the international economic and political environment, although not necessarily in ways beneficial to the countries. As that global environment now becomes more all-encompassing, and the pace of economic and technological change quickens and intensifies, small states such as those in this sub-region must find ways to participate in ways that are more beneficial than have hitherto been the case. Most Caribbean governments recognise that relatively less attention must now be focused on merely protecting the weak, searching for compensation for losers in the process of globalisation, obtaining "special considerations" for the vulnerable, and "buying time" for the economies; instead, much more attention must be given to building the capacity that will enable effective and efficient participation in the increasingly competitive international environment. In other words, it is important that in the development policy formulation process the awareness of weaknesses and threats must quickly give way to an emphasis on strengths and opportunities.

The review of the social and economic situation in the Caribbean shows that the region as a whole, and the OECS sub-region in particular, must not only continue to function at relatively high levels of disadvantage, but may be said to have fallen even further behind the levels of performance and attainment of the developed countries. In this report, national level performance was analysed and assessed through an examination of the different components of likely vulnerability, namely: disadvantage, sustainability and resilience. The social and economic dimensions of these three components were specifically explored. The discussion in the preceding chapters and encapsulated and summarised in the Development Indices presented in Chapter 2 of this report clearly shows that the accomplishments in economic growth, and in social and human development have been less than satisfactory; the capacity for sustained growth and development is weak; and the ability to withstand shocks to the social and economic systems is limited. At the same time, while it may be taken as a given that all the countries in the region are continuously exposed to natural haz-

ards, and the openness of their economies make them potentially vulnerable to rapidly changing international circumstances, it would also appear to be the case that exposure to external threats does not have also have to mean (and in fact, has not always meant) vulnerability to those threats. Development performance and attempts to measure progress should not then be defined in terms of or by that threat, but should instead be described by the efforts to address, survive or even take advantage of the challenges posed by those threats. In other words, development indicators should reflect not so much the exposure to threat as the capacity to withstand it and/or to create opportunities.

Finally, the material and analyses presented in this report have also shown the close and interdependent relationship between social well-being, human development, and economic growth. No longer therefore must social development be seen as a phenomenon that must await and/or be derived from economic development; instead the synergies of their interaction must be actively promoted and fostered. In the final analysis, successful economic development will be unlikely unless and until adequate levels of social and human well-being are achieved.

The policy challenges implicit in the summary of the region's weaknesses and challenges given in the OECS document "Towards an OECS Development Strategy" can then be expanded or elaborated on to read as follows: building the internal capacities that will enable successful competition in the international environment will necessarily require

- A reduction of the current and historical over-reliance on public-sector led growth;
- Movement away from the high reliance on trade preferences;
- A decrease in the continuing rigidity in trading patterns,
- A greater focus on the development of areas of economic advantage, as niche markets are sought, greater economic diversification is encouraged. Related to this is the need to
- Address the almost relentless increase in import demand even while export capacity continues to lag;
- Improvement in the capacity within the private sector, and changes in prevailing modus operandi – especially in terms of the approach to risk-taking and entrepreneurship, and the functioning of the labour market; and
- Human resource and social capital development – especially in the areas of skill development, and social and political institutional capacities. The sustainability of the development process and the levels of resilience are low and/or fragile in large part because of the insufficient attention to social investment.

A number of policy issues and possible policy approaches emerge from this diagnosis of the social and economic situation in the Caribbean. These are detailed below:

1. The recognised need for greater economic diversification will mean that

1.1. The negotiating position of the OECS Governments should be one that seeks to ensure that existing and emerging international agreements should not stymie nor frustrate the attempts by small island economies to diversify their economies;

1.2. The growth of a flexible and mobile labour force should be actively encouraged. This will necessitate the development of an environment in which the following are encouraged

and supported:

a) values and attitudes related to innovativeness;
b) aggressive risk-taking and effective entrepreneurship
c) a sense of personal efficacy;
d) a strong work ethic;
e) a prudent relaxation of possibly dysfunctional labour market regulations;
f) opportunities for making orderly and progressive job changes without paying the price of complete exclusion from the labour force; and
g) opportunities for quick and relatively easy skill retooling;
h) systems and procedures that encourage and facilitate more flexible approaches to work, and freedom of movement of labour

2. The task of employment creation in the Eastern Caribbean must seek to grapple with a) the need to effectively compete in the global environment; and b) the excess supply of primarily unskilled labour. In the short term governments may have to play an active role in employment creation. Government investment in public infrastructure should not crowd private investment; but Government investment should seek maximum complementarity with private investment. In other words, government employment creation should be shifted from under-productive current account to capital account where the spending would assist in developing the long-term productive capacity of the economy. Given that the demand for the products of small economies is operationally infinite then, increasing the demand for labour requires that these economies pay attention to the supply side of their activities. This will necessitate the following types of measures:

2.1 Reducing labour costs, and raising the quality to internationally competitive standards;
2.2 Paying attention to non-price considerations, such as quality assurance, the timeliness of delivery schedules, after-sales service, and marketing.
2.3 Providing labour-market driven vocational and academic training. Too often, the region has found itself in a situation where its education system does not provide most students with applicable job skills;
2.4 Implementing a tripartite approach to wage and price negotiations in the economy and developing broad-based incomes and prices policy. A more broad based wage setting policy with more centralised and productivity responsive wage setting increases the efficiency of the bargaining process

3. The creation of a knowledge-based economy and an emphasis on higher value-added services which will require

3.1. Higher levels of investment in human capital development that will improve and expand the core competencies, as well as increase the total quantum of skills and expertise;
3.2. Technical and vocational education and training programmes should be improved – but within the context of greater forward planning and more effective methods that can ensure a better match between the supply and demand for skills and expertise;
3.3. A review of the existing educational establishments – especially at the secondary level - so as to improve

their efficiency and productivity levels. Relatively high gross enrolment ratios and levels of expenditure, but low and deteriorating performance levels indicate a limited value-for-money situation. The planning, statistical and database capacities of the Ministries of Education need to be strengthened, and there should be a greater role for principals and teachers in the policy and decision-making processes;

3.4. Greater emphasis on quality assurance in the educational system. Here, the strategies must include the upgrading of basic teacher training, the expansion of in-service training for all teachers, and the establishment of minimum standards in performance levels;

3.5. An exploration of financing options such as cost recovery – especially in the area of tertiary education;

3.6. A reduction in the digital divide so that these countries can take maximum advantage of current technological transformations. In this connection, the introduction of training in technology policy analysis, and the exploration of ways to capitalise on the advances in information and communication technologies should be supported; and

3.7. More gender-sensitive workplace as well as labour-market conditions and behaviours, so as to ensure the most efficient and productive use of the available human resources.

4. Social and economic policies need to be better integrated. Industrial policy needs to be more appreciative of the social factors and conditions necessary for its successful execution, socio-economic constraints that could impinge on the implementation process, and any social consequences arising therein. Specifically, there is a clear and urgent need for poverty reduction – especially in the agricultural sector. Social and individual poverty reduction strategies must however be more closely linked with economic development strategies, and in ways that encourage neither the resource-draining welfarism, nor the sacrifice of productivity levels.

5. The impacts of poor health status, and social poverty on production and productivity levels need to be recognised. While health for all has generally been accepted as an inalienable human right, and improving health has therefore come to be an important social policy goal, the current/existing levels and patterns of health expenditure need review and adjustment if this goal is to be achieved. This review and some reform of the health systems are even more urgent if the economic development process is to be supported and advanced. Specifically,

5.1. The quality, efficiency and effectiveness of the primary health care and community-based health systems need to better reflect the official endorsements of their importance;

5.2. Related to that is the need for improved health management systems and practices which can improve internal allocative efficiencies, as well as the useful collection and processing of health information;

5.3. Public health problems and activities need to be provided with the resources and attention that will assure its removal from the relative neglect it currently experiences in most countries;

5.4. To assist the loosening of the linkages between poverty and poor, efforts to encourage health promotion must be more proactive. In this

connection, greater attention needs to be given the development of strategies that can reduce the current tendencies among the poor to delay the search for care – especially, preventive care;

5.5. Health finance reform is urgently needed, especially if current moves in most of the countries towards greater privatisation within the health sector are not to introduce greater health inequities than currently exist.

6. The necessary integration of social and economic policy, and a better understanding of the techniques of social management will require a shift in the thinking and orientations of policy-makers and planners. To this end, training in social policy analysis, management, and implementation should be supported, and national regional training institutions encouraged to develop appropriate curricula and programmes.

Data and Information Needs

Finally, the desperate need for data and information that can support policy analyses and the monitoring of the development processes cannot be overemphasised. The problem is neither new nor undocumented. The limited resources situation in the region imposes even greater urgency on the challenge of devoting greater effort to the identification of procedures and the development of indicators that are feasible and meaningful for the region. In this report a detailed examination of the development situation was undertaken and different kinds of development indices introduced. An Adjusted Human Development Index as well as an Index of Exposure were also described and calculated. These are thought to be reasonably sensitive to Caribbean realities – even while allowing for comparability with extra-regional countries. However, it must be clearly recognised that not only is this a first step, and must therefore be treated cautiously; but even more importantly, further progress and refinement can only be hampered by the absence of data.

The overall objective has to be the development of a limited number of simple indicators with maximum predictive capability for the OECS context. More detailed examination of currently available data can advance the progress towards that goal, but in the final analysis it will require trend data not now collected in a systematic manner within the region. In this connection, discussions and negotiations between existing national and regional data collection and data analysis institutions should be encouraged and supported, so that the most feasible and appropriate ways of moving forward may be determined. Consideration should also be given to the development of subregional technical resource facilities that could provide technical assistance to the member countries of the OECS.

Aid Coordination

For the OECS Member States to succeed in transforming their strategies and vision for integration, sustainable growth and development, into reality, enhancing the effectiveness of external assistance flowing into the sub-region represents one of the new and innovative approaches that needs to be adopted.

The recently observed trends in donor policies and strategies and resource mobilisation in the OECS, and the analysis of the reasons that contributed to relatively low disbursement rates in the OECS, have led to a concerted initiative to strengthen the coordination and manage-

ment of development assistance in the sub-region. To some degree, this initiative has been undertaken previously by donor agencies in sector specific and thematic groups but have had varying and limited levels of success; thereby underscoring the need for creating a structured and enabling environment within which aid coordination will yield optimal benefits to the OECS.

Within this context, enhanced aid coordination in the OECS region should offer a unique opportunity to design and establish mechanisms that will ensure: (i) participation of Member States in establishing the development priorities; (ii) governance capability and political commitment to implement processes; (iii) soundness of governments' borrowing decisions; and (iv) commitment and support of donors is sustained and in sync with regional development plans.

Evidently, the relatively weak and limited capacity of the sub-region, underscores the role of the OECS Secretariat as a single centralised regional organisation with the governments' mandate to support and assist its Member States in enhancing the coordination of aid flows in the region. In this regard, the Secretariat, together with the ECCB, has already engaged Member States and donor communities in discussions aimed at establishing an appropriate framework that will engender greater efficiencies in the use of scarce resources and more effective delivery of the services and benefits derived from external development assistance.

Overall, the expected outcome is a more efficient system for coordinating and managing development assistance throughout the OECS. Inevitably, this would mean enhancing both the skill base and systems within the Member States and the Secretariat that will ultimately lead to reducing duplication and the administrative burden on countries from varied donor requirements; effecting more selectivity or targeting of assistance so that priorities identified by the Member States are reflected in the donor programmes; improving efficiency gains and effectiveness in programme management and implementation. At one and the same time, it is proposed that improved donor coordination in the OECS is an important companion to strengthening the aid coordination framework as is demonstrated by recent initiatives by the donors to develop a strategy to speak to this issue. Therefore, aid coordination in the OECS region is geared towards increasing the impact of development assistance in terms of greater output and outcome.

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ANNEX 1: A TECHNICAL NOTE
Variable Definitions and Empirical Methodology

Definition of Variables and Sources

Commercial Bank Credit: Annual Statistical Digest, Eastern Caribbean Central Bank

Crime Rates: This was calculated as all crimes against property and persons per 1,000 population, using the mid-year population figures- Police Reports in Various Islands

Downward Wage Rigidity: This is defined as the resistance in the nominal wage to downward movements due to either institutional (laws/regulations) or "behavioural factors" (for example the perception that wage cuts are unfair).

Economic Diversification: This was measured by using the proportion of exports made up by the top three categories, the percentage contribution of the three largest sectors and the percentage employment in the three largest sectors. The more diversified the nation the smaller are these proportions.

Economic Exposure: This describes the openness and susceptibility to exogenous shocks through "trade and financial links". This is in turn indicated by the degree of export and import (inclusive of imported commercial energy) dependence, and the extent of the dependence on foreign finance. The two measurements for this were (1) export concentration i.e. the top three exports as a percentage of total exports, and (2) exports and imports as a percentage of GDP.

Educational Performance. Two measures were used:

(a) The percentage of those sitting who Satisfied the CXC Council's critieria for the award of Grades I & II – General proficiency - in Mathematics and English in one sitting. For the period preceding June 1998 Grades I & II only were used. As of June 1998 when a 6-grade classification replaced the older 5-grade scheme, Grades I, II, and III have been included. It must however be noted that given the changes in assessment criteria, and in the band-widths for these grades, the earlier Grades I-II cannot be compared with the current Grades I-III. Grades I-III together now have a wider spread than did the combined Grades I-II.

(b) An education concentration ratio, as measured by the number of passes [See (a) above] in the top 3-4 subjects (that is, those most frequently sat) expressed as a percentage of the total number of passes awarded by the Caribbean Examinations Council.

Employment: Standard definitions utilised by The International Labour Organisation Caribbean Office were used, so as to maintain consistency and comparability across the sub-region. Where bi-annual labour force surveys were conducted, figures based on yearly, rather than half-yearly estimates on measurements were used.

*Exports and Imports:*International Monetary Fund Article IV Consultations Statistical Appendices (various years)

Exposure to Environmental Events and Hazards: This refers to the likely occurrence of natural disasters. This may be measured by the frequency of occurrence, and the extent of the damage caused. Specific indicators used were the proportion of the population affected by such events as estimated over a relatively long period of time, and estimates of the damage to property and other resources. Data source Caribbean Hurricane Network (2000).

Female Income Shares: This is expressed as a proportion of total earned income.

Geographical Size and Population Density: World Development Indicators CDROM (2000 Edition) published by the World Bank

Gross Capital Formation: National Accounts Statistics (2000), Eastern Caribbean Central Bank

Health Care and Education Expenditure as a Percent of Total Government Expenditure: This information is compiled from official *Government Estimates*. Actual as well as estimated budgetary figures were used.

Index of Economic Exposure: This was derived as a composite of three indicators: vulnerability to foreign economic conditions (see above under economic exposure); remoteness and insularity (see below); and disaster proneness (see above.)

Infant Mortality Rate: The probability of dying between birth and exactly one year of age expressed as a proportion of 1,000 live births.

Insularity and Remoteness: The ratio of transport and freight costs to export proceeds is used.

Labour Market Rigidity: This is defined as constraints in the market in either the supply or demand for labour. An index developed by Rama (1995) was adopted.

Low-Birth Weight Babies: Low Birth Weight is defined as a percentage of live births, and as provided by the World Development Indicators CDROM (2000 Edition) published by the World Bank. These were also calculated for countries where data was available.

Net Migration Flows: World Development Indicators CDROM (2000 Edition) published by the World Bank

Political Participation: Male and female participation in Parliamentary Assemblies. (UNECLAC).

Population Density: This is calculated by dividing the mid-year population by land area. The indicator is calculated using the most recently available population**.**

Poverty: The simplest (and still the most common) measure is the head-count index of poverty, given by the proportion of the population for whom consumption (or another suitable measure of living standard) income, y is less than poverty line, z. Suppose q people are poor by this definition in a population of size n. Then the head count index is $H= q/n$, which is the proportion of total population, deemed to be poor. Further, absolute poverty has been calculated at 80% of the food line. For food poverty the food share of the lowest two quintiles for the country sample is calculated. The reciprocal of the food share was used to multiply the annual cost of the basket of food to determine the total annual cost of consumption (food and non-food) for the reference family (*Survey of Living Conditions,* Jamaica Various Reports). The size of the reference family varied between 4 – 5 and was indicated by trends in national aggregate data. The minimum basket of food used was that identified by the Caribbean Food and Nutrition Institute (CFNI) as that necessary to satisfy minimum calorie requirements.

Productivity: This is calculated by dividing a country's Real GDP by employment figures.

Real Per Capita Expenditure on Health Care: World Development Indicators CDROM (2000 Edition) published by the World Bank. Where possible this was supplemented/modified by data obtained in country.

Recommended Dietary Allowances: Recommendations for the minimum calorie requirements published by Caribbean Food and Nutrition Institute were adopted.

Savings: National Accounts Statistics (2000), Eastern Caribbean Central Bank

Transport and Freight Costs: Eastern Caribbean Central Bank Statistical Digest

Urbanisation: World Development Indicators CDROM (2000 Edition) published by the World Bank

Volatility Index: This has been used to measure the degree of variability in a society: for this, Atkins and Mazzi (1999) used the standard deviation of annual rates of growth of constant price GDP per head.
Welfare Expenditure: Selected Statistical Indicators of Caribbean Countries Vol. XI, 1998, published by the United Nations Economic Commission for Latin America and the Caribbean. Where possible this was supplemented/modified by data obtained in country.

Years of Potential Life Lost (YPLL): The Years of Potential Life Lost indicator measures years of potential life lost before a selected age cut-off. This measure is used to emphasize premature mortality by estimating the average time a person would have lived had he or she not died prematurely. The average life expectancy for the report was calculated to be 65 years. The figure of 65 was used because most of the raw mortality data available, rounded off deaths in older age groups to 65+ years. Taking a simple average of life expectancy rates would suggest a somewhat higher life expectancy of 72.7 years. Were the raw data available for each country then some adjustment would be anticipated for the calculated Years of Potential Life Lost. Calculating the YPLL, for example a person dying at age 35 of cancer would represent 30YPLL (65-35). The YPLL rate per 100,000 population is calculated as follows:

[Sigma] (65- age at death) x number of deaths at each age/ Number of people ages 65 and younger x 100,000

Youth Unemployment: These data were taken from the International Labour Organisation Caribbean Office.

Indices of Disadvantage, Resilience and Sustainability Calculated

1. In the development of the indices, standard indicators were averaged so as to develop sub-indices. The variables were then standardised using the method given below:

$$V_{ij} = \frac{X_{ij} - Min\ X_i}{Max\ X_i - Min\ X_i}, \qquad i = 1,2....9;\ j = 1,2....9$$

where V_{ij} represents for example, the degree of productivity arising from the *i*th variable for country *j*, X_{ij} the value of the *i*th variable included in the relevant index for country *j*, *Max* and *Min* refer to the maximum and minimum values of the *i*th variable for all the countries in the index. Minimum and maximum values (goalposts) are chosen for each underlying indicator. The index therefore takes on a value of between zero and one, and indicates the relative position of each country on each sub-index.

2. The same formula was used to develop the indices of disadvantage, resilience, sustainability and exposure. In the development of the indices, the variables were then standardised using the method given below:

$$V_{ij} = \frac{X_{ij} - Min\ X_i}{Max\ X_i - Min\ X_i}, \qquad i = 1,2....9;\ j = 1,2....9$$

where V_{ij} represents the degree of disadvantage, resilience, sustainability or exposure arising from the *i*th variable for country *j*, X_{ij} the value of the *i*th variable included in the particular index for country *j*, *Max* and *Min* refer to the maximum and minimum values of the *i*th variable for all the countries in the index. Minimum and maximum values (goalposts) are chosen for each underlying indicator. The index therefore takes on a value of between zero and one, with values close to one representing a high level of vulnerability, sustainability, resilience or exposure.

3. Educational Performance (and therefore the generation of a specific educational index) has been indicated by CXC performance in Mathematics and English. Since the USA could not be used as the reference point for this variable, for educational performance only, the UK was used as a substitute. Given the similarities in the ranking of these two countries in the Third International Mathematics and Science Study (TIMSS), and the Programme for International Student Assessments (PISA) [Education Indicators, 2001], as well as in their ranking on theUNDP's HDI and Educational Index, it was felt that this approach was justifiable. Also, given the similarities in the educational and performance assessment systems of the Caribbean and the UK, it was easier to use the UK as the reference point. While this seemed to be the most feasible approach at this time – given the non-availability of internationally comparable performance assessment data - there are however limitations, and some caution must be exercised in its use. Firstly, although the CXC grading scheme was modelled on the UK practice, and in the early days British Examiners were actively involved in the grading of scripts so as to ensure commonalities, at the present time, both systems have experienced some changes – especially in respect of the grading criteria used (norm-reference versus standard cut-off points). The UK currently utilises norm-reference criteria, even though there is some ongoing discussion about the merits of introducing fixed cut-off points. Secondly, the changes in the CXC grading system used from June 1998, have introduced some difficulty in carrying out accurate trend analyses within the Caribbean, and therefore also in comparison with the UK. Nevertheless, in the actual practice of assessing candidates for further education, or for entry into a job market – there is a de facto acceptance of grade level equivalencies. For this reason too, it was decided to take the approaches used in this report. There is then a clear need for accurate and internationally recognised performance assessment criteria.

The Human Development Index (HDI) - UNDP

The HDI is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development:

- A long and healthy life, as measured by life expectancy at birth.
- Knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary and tertiary gross enrolment ratio (with one-third weight).
- A decent standard of living, as measured by GDP per capita (PPP US$).

Before the HDI itself is calculated, an index needs to be created for each of these dimensions. To calculate these dimension indices – the life expectancy, education and GDP indices – minimum and maximum values (goalposts) are chosen for each underlying indicator. Performance in each dimension is expressed as a value between 0 and 1 by applying the following general formula:

$$\text{Dimension index} = \frac{\text{actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

The HDI is often calculated as a simple average of the dimension indices.

Calculating the Human Development Index

1. Calculating the life expectancy index

The life expectancy index measures the relative achievement of a country in life expectancy at birth. For example a country with a life expectancy of 72.7 years in 1999, the life expectancy index is 0.795

$$\text{Life expectancy index} = \frac{72.7 - 25 = 0.795}{85 - 25}$$

2. Calculating the education index

The education index measures a country's relative achievement in both adult literacy and combined primary, secondary and tertiary gross enrolment. First, an index for adult literacy and one for combined gross enrolment are calculated. Then these two indices are combined to create the education index, with two-thirds weight given to adult literacy and one-third weight to combined gross enrolment. For example in a country with an adult literacy rate of 98.3% and a combined gross enrolment ratio of 79.9% in 1999, the education

index in 0.922.

Adult literacy index = $\frac{98.3 - 0}{100 - 0} = 0.983$

Gross enrolment index = $\frac{79.9 - 0}{100 - 0} = 0.799$

Education index = 2/3 (adult literacy index) + 1/3 (gross enrolment index)

= 2/3 (0.983) + 1/3 (0.799) = 0.922

3. Calculating the GDP index

The GDP index is calculated using adjusted GDP per capita (PPP US$). In the HDI income serves as a surrogate for all dimensions of human development not reflected in a long and healthy life and in knowledge. Income is adjusted because achieving a respectable level of human development does not require unlimited income. Accordingly, the logarithm of income is used. For example in a country with a GDP per capita of $2,215 (PPP US$) in 1998, the GDP index is 0.517.

GDP index = $\frac{\log(2,215) - \log(\text{minimum value})}{\log(\text{maximum value}) - \log(\text{minimum value})} = 0.517$

The PPP(US$) values were those provided by the World Bank Tables. Real GDP figures were obtained from the Eastern Caribbean Central Bank and were also used to calculate another GDP Index for all OECS countries.

4. Calculating the HDI

Once the dimension indices have been calculated, determining the HDI is straightforward. It is a simple average of the three dimension indices.

HDI = 1/3 (life expectancy index) + 1/3 (education index) + 1/3 (GDP index)

ANNEX II

Some Discussion on components of Adjusted Human Development Index

Adjusting the Indices - Definitions and Operationalisation

With regard to the concept and measurement of human development it is possible to more specifically identify what are considered to be the most critical components. This is based on the above discussion as well as the analyses and conclusions of the preceding sector chapters. The Index will have at its core the concept of *vulnerability* – which in turn will have three basic dimensions: (1) Disadvantage (economic, social and political) (2) Resilience (social and economic) (3) sustainability (social and economic). (4) A fourth and separate Index of Exposure is also calculated.

2.2.1. Disadvantage*: - the levels of social, economic and political disadvantage (that is, lack, want, or weakness).* These, together with the possible indicators are set out below:

a) Economic:

- Physical Capital - Gross domestic investment; Net foreign investment flows;
- Production output - real GDP per capita;
- Poverty level (Food Poverty and Absolute Poverty); income inadequacy; and income inequality

b) Social:

- Levels of educational attainment – formal certification up to secondary level;
- Health status – Life Expectancy, YPLL
- Job security and employment status – unemployment, underemployment;
- Housing – overcrowding;
- Participation in civic life – extent and level of involvement in socio-political organisations;
- Gender differentials in all areas

c) Political:

- Political participation and empowerment – gender differentials
- Freedom of information and opinion

2.2.2. Resilience: This may be defined as: *The ability/capacity to recover, in the face of external shock and disturbance.*

In other words, resilience can be defined as the ability of a country to undergo change while still maintaining its basic elements or relationships. If a country is resilient it has the ability, for example, to survive an economic shock with little damage to its economic structure and relationships.

In this context, the risk is often a known entity; the areas of uncertainty would then have to do with when and how an event may strike. In respect of potential shocks from international economic events and developments, at least some of these may be anticipated if the appropriate research is done. The resources spent on R&D in the specific areas could then be one indicator of preparedness.

Resilience is a pivotal and critical factor, and the notion must go beyond mere survival and envisage the capacity to

i) return, at least, to the status quo ante, and /or

ii) go beyond the status quo ante – that is, what some have referred to as "thriving".

To be resilient one can either seek to compensate for the loss encountered, and/or have in place resources and mechanisms that can challenge, attack or protect [as in immunisation, or preventive strikes] against the shock. One can then begin with a concept of resilience that has at least two basic components that need to be identified and indicated:

a) Minimum thresholds – Two questions then need an answer:

- What level of survival is desirable or necessary? and/or
- What level will allow an adequate response to shock? (Eg. minimum levels for food security? Or level of educational attainment?)

b) The extent of flexibility and adaptability (including at the institutional levels)? This speaks to the importance of *diversity* for the ability of any country to bounce back. Possible indicators are therefore likely to be:

- Economic and physical size: the limited range and total quantum of resources – human and material – may limit options, constrain flexibility, and enforce dependence on external factors;
- Degree and extent of economic diversification: limited diversification increases the probability of a "wipe-out";
- Flexibility and opportunity for knowledge acquisition: problem - solving approaches in the educational and learning human resource development systems and arrangements can usually facilitate rapid and innovative response;
- Psycho-social values and attitudes related to risk-taking and innovativeness: overly bureaucratised societies and organisational systems, and suffocating hierarchies can quickly impede progress and necessary adjustment;
- Flexible labour markets, and human resource management: systems that frustrate or discourage the efficient matching of reward and effort, the marriage of training, skills and job specifications, and necessary re-tooling will inhibit the strength and speed of response to exogenously derived change;
- Technological innovation and management.

It is not now possible to measure all of these factors. In this report the index of resilience was derived from the combination of two sub-indices, namely social and economic resilience. Social resilience was developed from indicators, which try to measure how resilient a country is in terms of its health services and how well its human capital resources are being trained for the demands of the private sector. Economic resilience was calculated from variables that tried to capture physical size and economic diversification. The index components were then standardised using the method given in the appendix and averaged.

Social Resilience

One of the indicators included in the health resilience index was years of potential life loss (YPLL). This measure assesses the level of premature mortality by estimating the average time a person would have lived had he or she not died prematurely. It therefore also allows an evaluation of leading causes of mortality in younger age ranges [McDonnell, Vossberg, Hopkins and Mittan, 1998]. It is anticipated that the lower this indicator the more resilient the country is in terms of the health of the population.

The health resilience index also includes real per capita expenditure in health care and health care expenditure as a percent of total government expenditure to identify what level of health expenditure is required to increase health resilience. As would be expected, the higher these ratios the more resilient are the countries studied. Additionally, the number of low birth weight babies and the per capita intake of calories is also incorporated in the index to discern whether a given level of health expenditure is associated with improvements in terms of the health of young babies and to ascertain if individuals in the Caribbean are obtaining the optimal level of calories needed to maintain health livelihoods. The lower the proportion of low birth weight babies the higher the level of health resilience, while on the other hand the higher the per capita caloric intake the greater the level of health resilience.[1]

The education portion of the social resilience sub-index is comprised of three key variables: public spending on education as a percent of GNP, the number of students passing the Caribbean Examinations Council (CXC) English and Mathematics examinations and the number of persons unemployed under 25 years as a percentage of total unemployment. The higher the level of the first two indicators the more resilient the nation, while the lower the level of youth unemployment the more resilient is a country to shocks.

Public spending on education as a percent of GNP measures the level of importance placed on improving the human capital resource in a given country. The number of students passing English and Mathematics represents the quality of human resource talent being generated as a result of a given level of expenditure. The level of youth unemployment is used to show how well the education system may be matching human resource supplies with the type of labour desired by the employers.

*E*conomic Resilience

The economic size of a particular country was measured in terms of GDP per capita, gross international reserves in months of imports, geographical size and population density. The larger the landmass of the country, gross international reserves in months of imports and GDP per capita the more resilient is the nation, while the lower the level of population density, the higher the level of resilience.

The level of economic diversification was measured by using the proportion of exports made up by the top three categories, the percentage contribution of the three largest sectors and the percentage employment in the three largest sectors. The more diversified the nation the smaller are these proportions and by implication the more resilient is the country.

2.2.3. Sustainability may be defined as: The ability to maintain a given pattern of positive growth and development over a reasonable period of time.

A society and economy can be resilient but at relatively low levels; however, this may not permit longer-term sustainability, as this latter concept implies growth over long periods of time.[2] From this definition it also follows that it is the rate at which things happen /are implemented, and in relation to what may be needed, and or in relation to what obtains in other countries that will be the important markers. Thus for example, the level of savings could say something about resilience, but the savings rate or investment rates – especially in relation to those obtaining in other countries can say more about the sustainability of the growth desired. Again, if productivity and employment are less than the natural rate of increase then there is likely to be a problem with sustainability. At the same time, wide swings in performance levels (that is, high levels of volatility) can indicate the existence of problems with sustainability.

Sustainability may be indicated by the following factors:

- Physical, and human capital investments; R & D levels;
- Social capital – Social investment, and the existence of functional networks, trust, and reciprocity at individual, community and national levels;
- Organisational and institutional strength; the rule of law;
- Social security and stability – levels of violence and crime;
- Population stability – net migration flows and the movement of skills

Not all of the data required – especially those pertaining to social capital and organisational strength - are currently available. It is however possible to begin the analysis by examining some of what is available. The analyses that follow must therefore be seen as the first steps along a difficult but necessary path.

Much like the resilience index, the sustainability index calculated in this section encapsulates both economic and social aspects of sustainability. The social part of sustainability resulted from three categories: human capital, social security and stability, while the economic dimension of the index was derived from human and physical capital investments. The three components were then averaged to obtain the overall sustainability index.

Social Sustainability

The social dimension of sustainable human capital was captured by four variables. The first two – real changes in health and education expenditure – were used to capture the effects on the human capital stock of resources. Positive changes in the growth rates of these variables positively influence sustainability. The third variable - the level of food poverty suggests that the higher the level of food poverty the less likely it is that a country is going to continue on or even achieve a sustainable growth path. The fourth and final indicator of human capital sustainability – the number of students passing CXC English and Mathematics – tried to cap-

ture changes in education attainment levels. The larger this indicator, the higher the quality of the labour entering the work force, and the greater the possibility that the country would continue on its current growth path.

The social aspect of the sustainability index also included indicators, which examine social security and stability. One such variable was the level of crime - the argument being that a higher level of crime increases the uncertainty about future economic conditions and thus makes it difficult for a country to sustain it current rate of economic expansion. Indicators of the standard of living of the average citizen in the country, for instance, general poverty levels and housing conditions (the number of persons with access to improved water facilities) were also incorporated since these indicate the susceptibility of persons in the country to other social ills, and may also be expected to have an impact on the productive capacity of the nation. The lower the level of poverty the more sustainable is a country while the greater the access of citizens of a nation to improved water facilities the more sustainable is the country. Additionally, the ratio of welfare expenditure to unemployment was employed in the index to see how devoted governments in the region are to fighting the problem of unemployment. The higher this ratio the larger the sustainability index.

The levels of net migration flows and the degree of urbanisation was also utilised in the index to capture population stability. The lower the level of net migration flows the greater the ability of a given country to maintain its human capital resources and the more likely it is to continue on a sustainable growth path. Given the pervasiveness of rural poverty in the region, it is also likely that higher levels of urbanisation would imply lower levels of poverty.

Economic Sustainability

In this report, indicators of physical and human capital investments were used to capture economic sustainability. It would have been useful to be able to include gauges of organisational and institutional strength, however, data constraints have made this impossible. One of the economic guides utilised was gross capital formation as a percent of GDP to examine the intensity countries in the sample placed on increasing or maintaining their capital stock. The larger this ratio the more sustainable is a country as capital investments improve the quantity and quality of the country's capital stock.

Changes in productivity were also included in the index since the higher the growth in productivity the greater the productive capacity of the nation and the more able it is to recover after economic shocks. In addition, the level of savings as a percent of GDP was incorporated because the bigger the nation's savings the larger are the resources in the case of unforeseen circumstances and the quicker is a country able to rebound after a shock. Hence, an increase in this ratio is expected to expand the sustainability index. Two indicators of credit efficiency were also employed in the index – the proportion of credit to the top three sectors and output per unit of credit. The smaller the proportion of credit in the top three sectors the more diversified is the investment portfolio of financial institutions in the country and the greater the likelihood of new projects obtaining needed finance and in the process contributing to the sustainability of the nation. The output of the nation per unit of credit was used to examine the efficiency of credit in the nation, that is the level of output achieved because of a given level of credit investment. The higher this ratio the more sustainable is a country.

2.2.4. Index of Exposure

The high degree of variability in the economic performance of the economic systems of many developing countries has received much comment. In this regard, the "volatility index" has been used to measure the degree of variability in a society: for this, Atkins and Mazzi (1999:5) have used the standard deviation of annual rates of growth of constant price GDP per capita. However, as earlier indicated, while it may be reasonable to speak of volatile economic performance, the possible contribution of exogenous factors to this and/or to vulnerability in a given society needs to be independently, separately, and in comparison with endogenous factors, assessed.

The main exogenous causes of this volatility are likely to be (a) *Economic exposure*; and (b) *Exposure to environmental events and hazards*. Adapting and modifying the approaches suggested by Atkins and Mazzi [1999] and Briguglio, [1995, 1997], it may then be suggested that economic exposure describes the openness and susceptibility to exogenous shocks through "trade and financial links' and this may in turn be measured

by the degree of export and import (inclusive of imported commercial energy) dependence, and the extent of the dependence on foreign finance. To this *an export concentration* or UNCTAD's *export diversification index* may be added. Measurements may then focus on the average imports and exports of goods and non-factor services as a percentage of GDP, and on the percentage of total exports of goods and services accounted for by the top 2-3 export categories.

Exposure to environmental events and hazards measures the likely occurrence of natural disasters. This may be measured by the frequency of occurrence, and the extent of the damage caused. Specific indicators can be the proportion of the population affected by such events as estimated over a relatively long period of time, and estimates of the damage to property and other resources. Here, care must be exercised so that there is fair comparability of countries, and that the model utilised does not ensure that "all other things being equal small states [will] rank as more vulnerable" [Crowards 2000:18].

Building on the work of [Croward and Coulter 1998, 1999] it is possible to construct a time series estimates of exposure in the region. An *Index of economic exposure* can be derived as a composite of three indicators:

- vulnerability to foreign economic conditions;
- remoteness and insularity; and
- disaster proneness.

Vulnerability to foreign economic conditions relates to the extent to which development within a particular country is determined by foreign economic conditions. In this report, it is captured by a country's dependence on foreign trade. With respect to the second indicator, Briguglio (1995) had noted that insularity and remoteness lead to higher per-unit transportation costs, time delays and unreliability in transport services and can increase the need to maintain large stocks to meet any sudden shifts in demand. Hence, to capture *insularity and remoteness*, the ratio of transport and freight costs to export proceeds is used. *Disaster proneness* also creates additional costs and diverts resources away from directly productive activities. This characteristic is measured as, the number of category three, four and five hurricanes, which have passed within one-degree latitude or longitude of each country over the period 1886-1999.[3]

Sub-indices were adjusted for country size using gross domestic product (GDP) per capita and then standardised using the method given in the appendix which forces the index to take a value between zero and one, with values close to one representing a high level of vulnerability. Finally, a weighted average of the index of exposure to foreign economic conditions (10%), index of remoteness and insularity (40%) and the index of proneness to economic disaster (50%). The weights used were guided by the belief that proneness to economic disaster and remoteness and insularity exert a greater influence on a country's level of economic exposure than exposure to foreign economic conditions.[4]

Endnotes

1 There will be limits on this, as excessive caloric intake can lead to another health problem: namely, obesity. In addition, there is the well-known law that the proportionate increases in intake decline after certain income levels are reached.

2 A good illustration of the point is that a small-farmer can survive vicissitudes by taking children out of school to work on a farm, but the in the longer-term, that farm enterprise may not be able to sustain itself (due to loss of education and human capacity building), nor contribute to sustainable agricultural development.

3 The data for the first two indicators were obtained from the ECCB (1998 and 1999) while the final indicator came from the Caribbean Hurricane Network (2000).

4 It should be noted that the weights chosen could affect the results obtained.

Statistical Appendix

Table 1.1 Sectoral composition of gross domestic product (%), for the OECS

Industry	Anguilla		Antigua		BVI		Dominica		Grenada		Industry
	1989	2000	1985	2000	1985	1999	1985	2000	1985	2000	
Agriculture	4.7	2.9	5.0	3.5	4.6	1.8	27.9	18.2	17.9	7.7	Agriculture
Mining & Quarrying	0.6	1.0	1.0	1.9	0.2	0.3	0.7	0.8	0.3	0.5	Mining & Quarrying
Manufacturing	0.7	1.3	4.4	2.5	2.9	0.9	6.4	7.2	5.1	7.6	Manufacturing
Utilities	1.7	3.0	3.7	3.9	2.8	1.0	2.8	4.3	2.6	5.5	Utilities
Construction	21.5	14.8	7.7	13.5	7.4	2.8	6.7	8.2	7.9	10.4	Construction
Trade	5.5	7.8	10.4	9.7	8.9	21.1	9.4	13.0	13.6	10.8	Trade
Hotels	33.7	30.1	15.8	12.8	22.4	13.3	1.2	2.5	6.2	9.0	Hotels
Transport & Com	12.4	18.6	17.5	21.8	10.9	2.6	13.1	20.9	12.8	23.4	Transport & Com
Financial	13.0	19.8	17.2	18.1	26.4a	48.3	12.6	16.7	12.7	13.3	Financial
Government	12.8	14.0	14.6	16.1	12.7	5.7	22.4	17.8	20.9	16.4	Government
Other Services	1.7	1.9	8.4	6.6	3.7	3.5	1.0	1.4	4.5	3.2	Other Services
Imputed Service	(8.2)	(15.4)	(5.4)	(10.3)	(6.5)	(2.0)	(4.4)	(11.0)	(4.5)	(7.8)	Imputed Service

Industry	Montserrat		St. Kitts		St. Lucia		St. Vincent		Industry
	1985	2000	1985	2000	1985	2000	1985	2000	
Agriculture	4.9	1.7	9.6	2.8	15.0	8.4	19.6	10.4	Agriculture
Mining & Quarrying	1.3	0.1	0.3	0.4	0.6	0.4	0.2	0.3	Mining & Quarrying
Manufacturing	5.8	0.9	12.8	10.5	8.5	5.5	11.6	7.1	Manufacturing
Utilities	3.7	2.5	1.0	1.8	3.9	4.5	4.0	5.8	Utilities
Construction	8.0	19.1	8.8	16.3	6.9	8.8	7.7	13.3	Construction
Trade	14.3	5.2	13.9	15.2	15.9	14.0	11.4	16.3	Trade
Hotels	4.1	1.3	6.9	6.6	6.8	13.7	2.0	2.2	Hotels
Transport & Com	11.9	19.9	12.3	12.9	10.4	18.7	18.4	21.0	Transport & Com
Financial	22.6	18.0	12.2	16.8	11.3	14.9	10.3	9.8	Financial
Government	16.3	33.0	21.7	19.4	21.6	14.7	17.0	17.8	Government
Other Services	12.0	7.0	5.3	4.3	4.9	4.8	2.6	1.8	Other Services
Imputed Service	(4.9)	(8.9)	(4.7)	(7.0)	(5.8)	(7.8)	(4.8)	(5.8)	Imputed Service

a) 1989 figure.

Notes

i. Utilities for 1985 include electricity, gas and water, for the current year it includes electricity and water.
ii. Trade includes both retail and wholesale.
iii.Hotels represent restaurants as well.
iv. Transport and Communication.
v. Financial & Business Services.
vi.Government Services.

In 1985 it is Imputed Service Charges, for the current year it is Less Imputed Service Charges.

Source: Caribbean Development Bank Social and Economic Indicators and ECCB

Table 1.2 Real GDP per capita

Year	Latin America and the Caribbean	Barb.	Dom.	St. Lucia	Gren.	SVG	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.012	0.139	0.111	0.195	0.112	0.063	0.470	0.265	0.507	0.541	0.663
1991	0.014	0.129	0.0113	0.185	0.108	0.072	0.456	0.268	0.493	0.369	0.634
1992	0.014	0.113	0.115	0.197	0.107	0.081	0.467	0.259	0.481	0.374	0.646
1993	0.019	0.111	0.116	0.194	0.103	0.081	0.483	0.268	0.495	0.400	0.641
1994	0.022	0.116	0.113	0.188	0.104	0.073	0.488	0.282	0.506	0.395	0.667
1995	0.021	0.116	0.111	0.184	0.107	0.084	0.435	0.286	0.458	0.342	0.675
1996	0.022	0.122	0.112	0.177	0.107	0.081	0.422	0.311	0.468	0.357	0.677
1997	0.022	0.122	0.110	0.167	0.108	0.081	0.394	0.343	0.479	0.358	0.692
1998	0.023	0.126	0.109	0.163	0.117	0.087	0.384	0.341	0.474	0.584	0.668
1999	0.022	0.127	0.107	0.163	0.128	0.091	0.391	0.347	0.475	0.395	0.664

Source: Computed

Table 1.3 Capital formation in the OECS and selected Caribbean countries

Country	Units	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Anguilla	US$M	19.47	21.39	17.99	19.62	21.68	23.05	22.25	29.64	39.61	34.71
% Growth			0.10	-0.16	0.09	0.11	0.06	-0.03	0.33	0.34	-0.12
Antigua & Barbuda	US$M	154.35	147.43	144.65	162.01	182.19	214.37	227.63	266.90	298.93	319.40
% Growth			-0.04	-0.02	0.12	0.12	0.18	0.06	0.17	0.12	0.07
British Virgin Islands	US$M	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
% Growth			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dominica	US$M	57.03	56.66	53.65	57.98	72.50	70.13	80.04	72.92	72.28	83.96
% Growth			-0.01	-0.05	0.08	0.25	-0.03	0.14	-0.09	-0.01	0.16
Grenada	US$M	91.52	73.89	77.96	94.00	88.63	103.85	115.26	127.37	150.11	168.07
% Growth			-0.19	0.06	0.21	-0.06	0.17	0.11	0.11	0.18	0.12
Montserrat	US$M	27.32	26.21	25.36	25.48	21.24	19.47	20.31	25.54	25.55	17.54
% Growth			-0.04	-0.03	0.00	-0.17	-0.08	0.04	0.26	0.00	-0.31
St. Kitts/Nevis	US$M	70.65	70.97	89.93	84.39	106.82	112.64	121.00	123.35	112.37	152.09
% Growth			0.00	0.27	0.27	0.27	0.05	0.07	0.02	-0.09	0.35
St. Lucia	US$M	109.31	128.20	139.60	139.60	136.00	141.31	154.71	154.99	165.20	175.68
% Growth			0.17	0.09	0.09	-0.06	0.04	0.09	0.00	0.07	0.06
St. Vincent	US$M	62.56	56.58	61.23	61.23	79.79	78.82	87.13	100.64	107.08	88.13
% Growth			-0.10	0.08	0.08	0.16	-0.01	0.11	0.16	0.06	-0.18

Source: ECCB

Table 1.3.a: The stability of output growth in the OECS -

Country	AR(1) Coefficient	Std. Errort-Statistic	Prob.	ADF Test Statistic	Critical Value	Stationarity
Anguilla	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Antigua & Barbuda	-0.7014	0.0377	-1.8599	0.0898	-1.8599	-4.0113	Unstable
British Virgin Islands	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dominica	-1.1014	0.3881	-2.8384	0.0161	-2.8384	-4.0113	Unstable
Grenada	-0.6869	0.3595	-1.9113	0.0850	-1.9113	-4.0681	Unstable
Montserrat	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Kitts/Nevis	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Lucia	-0.4952	0.3004	-1.6483	0.1275	-1.6483	-4.0113	Indeterminate
St. Vincent	-0.7706	0.4007	-1.9234	0.0807	-1.9234	-4.0113	Unstable
Barbados	-0.8762	0.3019	-2.9027	0.0144	-2.9027	-4.0113	Unstable
Belize	-0.4591	0.2406	-1.9078	0.0828	-1.9078	-4.0113	Unstable
Cuba	-0.7277	0.3349	-2.1726	0.0616	-2.1726	-4.2207	Unstable
Dominican Republic	-0.7424	0.4446	-1.6700	0.1231	-1.6699	-4.0113	Indeterminate
Haiti	-1.1243	0.4278	-2.6280	0.0235	-2.6280	-4.0113	Unstable
Jamaica	-0.7917	0.3435	-2.3049	0.0417	-2.3049	-4.0113	Unstable
Trinidad and Tobago	-0.7786	0.3413	-2.2812	0.0434	-2.2812	-4.0113	Unstable

Source: Computed **ADF is Augmented Dickey-Fuller.** **AR(1) is Autoregression of order 1.**

Table 1.4(a): **Net private capital flows to emerging markets, 1992 – 2000**

(In billions of U.S. dollars)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Emerging markets									
Total net private capital inflows	112.6	172.1	136.3	226.9	215.9	147.6	75.1	80.5	32.2
Net foreign direct investment	35.4	59.4	84.0	92.6	113.2	138.6	143.3	149.8	146.0
Net portfolio investment	56.1	84.4	109.6	36.9	77.8	52.9	8.5	23.3	58.3
Bank loans and other	21.0	28.3	–57.3	97.4	24.9	–44.0	–76.7	–92.5	-172.1
Africa									
Total net private capital inflows	–4.0	–1.8	2.9	10.9	7.5	16.7	11.5	14.8	8.6
Net foreign direct investment	0.6	1.9	2.3	2.2	4.8	7.4	5.2	9.5	6.8
Net portfolio investment	1.8	1.0	2.0	1.4	1.3	3.7	4.3	4.4	4.3
Bank loans and other	–6.4	–4.7	–1.4	7.3	1.4	5.6	2.0	0.9	-2.4
Asia									
Total net private capital inflows	20.8	57.4	63.6	104.9	104.1	–1.4	–42.6	–27.0	-2.6
Net foreign direct investment	15.7	33.9	47.1	46.6	53.1	55.5	58.3	49.9	49.3
Net portfolio investment	9.0	21.8	11.8	14.2	12.9	3.5	–17.9	–5.6	45.9
Bank loans and other	–3.9	1.7	4.7	44.1	38.1	–60.4	–82.9	–71.3	-97.8
Europe									
Total net private capital inflows	6.5	27.4	1.8	48.8	26.7	32.2	16.3	18.0	12.8
Net foreign direct investment	5.1	6.7	6.1	14.6	14.4	20.3	21.7	24.2	25.5
Net portfolio investment	2.3	12.4	21.5	14.6 1	9.6	23.3	0.7	6.6	12.4
Bank loans and other	–0.8	8.4	–25.8	19.7	–7.4	–11.4	–6.1	–12.8	-25.1
Middle East									
Total net private capital inflows	33.7	22.3	18.6	9.1	5.6	14.6	19.9	20.6	-25.9
Net foreign direct investment	0.2	3.5	5.4	4.6	1.4	2.3	2.0	2.6	7.6
Net portfolio investment	12.7	5.1	7.6	3.8	3.0	3.3	6.7	7.3	-9.0
Bank loans and other	20.8	13.6	5.6	0.8	1.2	9.0	11.2	10.8	-24.5
Western Hemisphere									
Total net private capital inflows	55.6	66.8	49.4	53.1	72.1	85.5	70.0	54.1	39.2
Net foreign direct investment	13.9	13.4	23.1	24.7	39.5	53.1	56.1	63.6	56.9
Net portfolio investment	30.3	44.0	66.7	3.0	41.0	19.2	14.7	10.6	4.7
Bank loans and other	11.4	9.4	–40.4	25.5	–8.4	13.2	–0.8	–20.1	-22.3

Source: IMF International Capital Markets

Table 1. 4 (b.): Foreign direct investment in Latin America and the Caribbean

(US$ millions)

Country	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Cent. America	1186.1	2961	2561.8	3411.3	2921.8	5106.9	4901.5	4988	11793.1	10293.1	7933.5
Guatemala	68.8	150.2	329.7	76.2	47.6	90.7	94.1	142.5	65.2	75.2	76.9
Nicaragua	0	0	0	0	0	15.0	38.8	40.0	70.4	85.0	
El Salvador	24.1	18.3	17	14.4	1.9	25.2	15.3	16.4	38	38	
Costa Rica	61	80.3	122.3	95.2	106.4	172.8	221.6	244.4	292.9	390	
Panama	-490.8	-533.8	-501.2	51.5	131.9	41.2	138.7	155.7	353.6	178.9	237.6
Mexico	1523.0	3246.0	2594.0	3174.0	2634.0	4762.0	4393.04	389.0	10973.0	9526.0	7619.0
South America	1604.5	2016.3	4484.9	3542.4	3445.4	5215.5	7812.7	4965.5	11039.5	14001	15679.9
Argentina	574.0	19.0	1147.0	1028.0	1836.0	2439.0	4052.0	2555.0	2941.0	4026.0	4080.0
Chile	116.0	230.0	141.0	1279.0	582.0	400.0	321.0	375.0	847.0	971.0	3011.0
Colombia	1016.0	642.0	293.0	547.0	484.0	433.0	679.0	719.0	1515.0	2033.0	3254.0
Brazil	177.0	1087.0	2794.0	608.0	324.0	89.0	1924.0	801.0	2035.0	3475.0	
Bolivia	10	10	10	-25.4	26.1	50	91.1	147.2	147.2	390.6	
Peru	22	32	26	59	41	-7	136	670	3084	2083	3571
Paraguay	1	5.3	8.4	12.8	76.3	83.5	136.6	110.8	179.8	79.8	
Uruguay	32.5	45	44.5	0	0	0	0	101.5	154.5	156.6	168.9
Venezuela	-344	-16	21	34	76	1728	473	-514	136	686	1595
Caribbean	67.3	243.1	248.2	245.8	668.9	896.4	630.9	931.5	1148.8	1219.5	741.8
Belize	.6	6.9	14	18.7	17.2	13.6	15.6	9.2	15.4	21.1	
Anguilla					10.8	6.3	15.5	6.7	11.5	17.9	29.8
Antigua	22.6	38.6	32.9	43.1	60.5	54.6	20.0	15.0	25.2	33.3	22.0
Aruba	0	0	0	0	130.5	187.1	37	-17.9	-73.2	-5.5	84.5
Bahamas	-13.2	10.8	36.7	25	-17.3	-1.3	1	27.1	23.4	106.8	87.1
Barbados	5	4.6	11.5	5.4	9.7	7.4	14.4	9.3	12.9	11.7	
Dominica	5.2	13.5	11.9	17.1	12.9	15.3	20.6	13.3	22.6	54.8	
Dom. Republic	50.0	89.0	106.1	110.0	132.8	145.0	179.7	224.5	360.2	404.4	394.1
Grenada	4.5	11.2	15.0	10.5	13.1	16.5	23.8	21.5	21.3	23.4	19.8
Guyana	-	-	-	-	-	-	-	25			
Haiti	4.8	4.7	10.1	9.4	8.2	-1.8	-2.2	-2.8	0	7.4	4.1
Jamaica	-4.6	53.4	-12	57.1	137.9	133.2	142.4	77.9	116.8	166.7	
Neth Antilles	1.0	2.2	6.7	17.4	8.1	33.4	40.1	11	21.5	9.8	
Montserrat	4.7	11.2	9.5	4.9	9.6	8.0	4.6	4.8	7.4	3.3	0.4
St. Kitts	9.2	16.7	13.1	40.8	48.7	23.0	12.5	13.9	16.6	23.1	37.6
St. Lucia	14.5	15.0	16.4	26.6	45.8	59.3	41.4	35.8	33.8	32.9	25.6
St. Vincent	7.4	5.0	9.1	10.6	7.7	8.9	14.8	31.4	47.3	30.6	18.3
Suriname	-33.8	-72.6	-95.8	-299.7	-76.8	18.5	-54.3	46.6	-30.2	-21.3	
Trinidad & Tobago	-14.5	33.1	62.9	148.9	109.4	169.2	177.9	379.2	516.2	298.9	
Latin America	2790.6	4977.3	7046.7	6953.7	6367.2	10322.4	12714.2	9953.5	22832.6	24294.1	23613.4
Latin America & Caribbean	2857.9	5220.4	7294.9	7199.5	7036.1	11218.8	13345.1	10885.0	23981.4	25513.5	24355.2
ECCB	68.0	111.0	108.0	153.6	209.2	192.1	153.3	142.4	185.8	219.4	172.0
Other Caribbean	-0.7	132.1	140.2	92.2	459.7	704.3	477.6	789.1	963.0	1000.0	569.8

Table 1. 4 (b) (cont'd): Foreign direct investment in Latin America and the Caribbean (US$ millions) 1997 – 2000

COUNTRY	1997	1998	1999	2000
Central America	14855	15181.3	13922.7	14558.6
Guatemala	84.4	672.8	154.6	230.1
Nicaragua	173.1	183.7	300	253.7
El Salvador	59	1103.7	231.4	185.4
Costa Rica	408.2	613.1	669.3	…
Panama	1299.3	1296.0	652.4	603.4
Mexico	12831.0	11312.0	11915.0	13286.0
South America	48001.8	54535.3	70268.1	56751.7
Argentina	9161	7292	23984	11665
Chile	5219	4638	9221	3675
Colombia	5562	2829	1468	2376
Brazil	19650	31913	28576	32779
Bolivia	730.6	957.3	1016.5	733.2
Peru	1781	1905	2390	680
Paraguay	235.8	341.9	87.3	81.8
Uruguay	126.4	164.1	235.3	297.7
Venezuela	5536	4495	3290	4464
Caribbean	957	1078.57	2082.52	1142.71
Belize	12	17.7	47.4	17.7
Anguilla	21.45	28.39	38.14	39.49
Antigua	24.25	27.47	42.91	38.35
Aruba	195.9	83.6	392.1	-227.5
Bahamas	210	146.9	144.6	249.6
Barbados	14.8	15.8	17.4	19.4
Dominica	21.97	9.04	19.14	13.37
Dom. Republic	420.6	699.8	1337.8	952.9
Grenada	36.03	49.87	43.03	39.40
Guyana	…	…	…	…
Haiti	4.0	10.8	…	…
Jamaica	203.3	369.1	523.7	456
Neth Antilles	…	…	…	…
Montserrat	2.57	2.57	8.28	3.51
St. Kitts	25.77	33.41	59.59	99
St. Lucia	51.40	85.99	86.79	52.29
St. Vincent	92.67	89.02	56.13	28.2
Suriname	-9.2	9.1	-61.5	-148
Trinidad and Tobago	999.3	729.8	…	…
Latin America	62856.8	69716.6	84190.8	71310.3
LA & Caribbean	63813.8	70795.2	86273.3	72453.0
ECCB	276.1	325.8	354.0	313.6
Other Caribbean	680.9	752.8	1728.5	829.1

Source: International Financial Statistics, IMF, March 2002

Table 1.4(c): **Net foreign investment flows**

	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Montserrat
1990	0.439	0.499	0.569	0.822	0.604	1.000	0.049	0.000
1991	0.439	0.499	0.569	0.822	0.604	1.000	0.049	0.000
1992	0.439	0.499	0.569	0.822	0.604	1.000	0.049	0.000
1993	0.439	0.499	0.569	0.822	0.604	1.000	0.049	0.000
1994	0.501	0.156	0.002	1.000	0.420	0.256	0.000	1.000
1995	1.000	0.455	0.644	0.913	0.511	0.588	0.269	0.000
1996	0.372	0.345	0.441	0.558	0.306	1.000	0.482	0.000
1997	0.258	0.527	0.545	1.000	0.250	0.663	0.432	0.000
1998	0.454	0.629	0.836	1.000	0.876	0.428	0.728	0.000
1999	0.778	0.740	0.660	1.000	0.979	0.644	0.715	0.000

Source: Computed

Table 1.5 **Composition of labour force (%)**

	Antigua and Barbuda		Dominica		Grenada		
Industry	1982	1991	1985	1997	1991	1996	Industry
Agriculture	4.3	4.0	45.3	23.7	14.7	15.5	Agriculture
Mining	0.5	0.3	0.04	NA	0.5	0.06	Mining
Manufacturing	10.1	5.4	5.6	8.8	7.7	8.3	Manufacturing
Utilities	2.2	1.6	1.6	1.1	1.5	1.5	Utilities
Construction	13.6	11.4	15.4	8.4	12.7	13.2	Construction
Trade	9.5	14.4	3.9	15.8	17.8	14.9	Trade
Hotels	16.2	17.1	NA	3.8	3.5	4.3	Hotels
Transport & Com	7.1	8.7	5.7	5.8	6.7	6.7	Transport & Com.
Financial	5.2	5.3	0.7	5.4	3.6	4.0	Financial
Government	10.5	9.3	6.7	15.2	7.3	11.4	Government
Community Ser.	13.2	13.1	3.7	3.6	13.7	8.1	Community Ser.
Other	7.8	6.2	11.5	8.5	10.5	12.0	Other

	Montserrat		St. Kitts/Nevis		St. Lucia		
Industry	1980	1991	1982	1991	1985	1997	Industry
Agriculture	10.4	6.6	61.8	13.8	33.9	20.5	Agriculture
Mining	0.2	0.2	…	0.2	0.2	n/a	Mining
Manufacturing	10.1	5.3	23.4	14.0	10.4	11.1	Manufacturing
Utilities	1.9	2.4	…	1.7	1.4	1.5	Utilities
Construction	15.6	22.0	5.4	11.6	3.2	7.7	Construction
Trade	13.2	14.2	n/a	13.5	12.2	16.2	Trade
Hotels	n/a	5.1	9.3	10.3	6.3	9.4	Hotels
Transport & Com.	n/a	9.3	…	5.7	4.5	8.2	Transport & Com.
Financial	43.2	5.3	…	5.9	2.6	5.2	Financial
Government	n/a	8.6	…	5.7	n/a	15.7	Government
Community Ser.	n/a	13.7	…	11.1	25.3	1.4	Community Ser.
Other	0.1	7.5	…	6.5	n/a	3.4	Other

Source: Annual Statistical Digest 1987, Government of St. Lucia, Annual Digest of Statistics for 1982, St. Christopher and Nevis, Digest of Caribbean Labour Statistics 1998, ILO Caribbean Office, Statistical Digest No. 6 1985, Commonwealth of Dominica, Statistical Yearbook 1988, Antigua and Barbuda, 9th Statistical Digest 1984, Montserrat.
Note: For Montserrat, trade includes: Hotels, Bars, and Restaurants . Also, financial includes: Social and Personal Services. In general Trade includes wholesale and retail.

Table 1.6 Selected OECS and comparison countries telecommunications services and rates

	Dominica	Grenada	St Kitts& & Nevis	St Lucia	St Vincent and the Grenadines	Barbados	Jamaica (outside Digiport)	Trinidad
Population	71 000	91 000	41 000	166 000	111 000	261 000	2 525 000	1 305 000
Telephone sets	17 185	27 000		35 986	20 193	122 724	411 777	272 369
Main lines per 100 residents	25	25	35	18	16	35	12	16
Waiting list for main lines as a percentage of main lines	0.02	0.03	0.00	0.15	0.08	0.02	0.56	0.04
International outgoing telephone traffic (minutes)	5 000 000	8500 000	8 040 000	12 677 656	2 295 000	32 000 00055 018 000		58 565 048
International outgoing traffic per person (minutes)	70	93	196	76	21	123	22	45
Business telephone connection charge (US$)	20.56	125.93			37.04	48.76	8.01	23.54
Business telephone monthly subscription (US$)	7.52	40.74		10.09	10.74	40.67	2.21	29.42
Analog cellular subscribers per 100 population	0.00	0.44		0.60	0.07	1.77	1.79	0.43
Analog cellular connection charge (US$)					50.00	22.39	34.87	50.44
Analog cellular monthly subscription charge (US$)					19.00	0.00	34.47	30.26
Analog cellular 3 minute call (US$)					1.22	1.27	0.66	0.88
Radio-paging subscriber	462		700		0	0	0	0
Leased circuits		22		164		1 067	910	1 535
Number of Internet hosts	55	0	2	21	0	21	249	141
Internet hosts per 1000 population	0.77	0.00	0.05	0.13	0.00	0.08	0.10	0.11
US Accounting Rate	0.91	0.91	0.91	0.91	0.91	1.05	1.25	1.15
Three minute IDD toll to New York, US (US$)	6.21	4.40	5.01	5.55	5.73	5.51	3.23	3.10
Analog private leased line (voice grade) installation (US$)						1 250	1 680	
Analog private leased line (voice grade) monthly rate (US$)								316
T – I Half Channel/month (US$)	18 100	18 100	18 100	18 100	18 100	16 647	21 980	30 400
56 kbps circuit installation (US$)	1 850	1 850	1 850	1 850	1 850	1 263	1 500	300
56 kbps circuit/month (US$)	1 995	1 995	1 995	1 995	1 995	2 080	2 800	3 800

Sources: International Telecommunications Union and World Bank, 1997

Table 1.7 ECCB area election participation
(Voter Turnout in Percent; Election year noted in parentheses)

Anguilla	65.3 ***(76)***	79.1 ***(80)***	73.8 ***(81)***	69.5 ***(84)***	73.2 ***(89)***	75.2 ***(94)***	74.9 ***(99)***
Ant-Barb.			77.1 ***(80)***	61.1 ***(84)***	60.7 ***(89)***	62.3 ***(94)***	63.0 ***(99)***
Dominica	77.3 ***(75)***		80.3 ***(80)***	74.6 ***(85)***	66.6 ***(90)***	… ***(95)***	
Grenada	83.5 ***(72)***		65.3 ***(76)***	86.2 ***(84)***	68.4 ***(90)***	61.7 ***(95)***	56.5 ***(99)***
Montserrat			78.0 ***(78)***	74.6 ***(83)***	72.0 ***(87)***	66.8 ***(91)***	58.1 ***(96)***
St. Kitts-Nevis			74.6 ***(80)***	77.7 ***(84)***	66.8 ***(89)***	66.4 ***(93)***	68.4 ***(95)***
St. Lucia	84.1 ***(74)***		68.0 ***(79)***	65.8 ***(82)***	60.8 ***(87)***	62.8 ***(92)***	65.8 ***(97)***
St. Vin/Gre	63.2 ***(74)***		63.9 ***(79)***	88.8 ***(84)***	72.4 (***89)***	65.6 ***(95)***	67.4 ***(98)***

Source: Electoral Offices

Table 2.1 **Index of exposure to foreign economic conditions**

	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	Antigua & Barbuda	Montserrat	St. Kitts & Nevis	British Virgin Islands
1990	0.078	0.283	0.541	0.000	n.a.	n.a.	n.a.	n.a.	n.a.
1991	0.331	0.404	0.400	0.286	0.739	0.208	0.875	0.264	0.949
1992	0.336	0.407	0.410	0.293	0.724	0.157	0.853	0.327	0.951
1993	0.379	0.432	0.402	0.335	0.755	0.234	0.870	0.284	0.946
1994	0.388	0.445	0.415	0.347	0.730	0.277	0.865	0.271	0.951
1995	0.374	0.434	0.410	0.342	0.653	0.306	0.816	0.219	0.953
1996	0.441	0.517	0.472	0.443	0.706	0.474	n.a.	0.231	1.000
1997	0.442	0.503	0.458	0.424	0.683	0.552	0.825	0.226	0.976
1998	0.442	0.500	0.455	0.430	0.685	0.557	0.833	0.427	0.976
1999	0.439	0.499	0.463	0.432	0.667	0.560	0.835	0.266	0.972

Source: Figures computed from data obtained from the ECCB National Account Statistics and ECCB Statistical Digest

Table 2.2 Index of remoteness and insularity

	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	Antigua & Barbuda	Montserrat	St. Kitts & Nevis
1990	0.538	0.608	0.525	0.500	0.339	n.a.	0.763	0.884
1991	0.512	0.574	0.487	0.476	0.341	0.674	0.694	0.727
1992	0.508	0.579	0.478	0.480	0.342	0.657	0.703	0.724
1993	0.502	0.568	0.452	0.470	0.359	0.666	0.731	0.737
1994	0.398	0.437	0.252	0.355	n.a.	0.676	0.365	0.551
1995	0.311	0.365	0.047	0.282	n.a.	0.671	0.534	0.219
1996	0.479	0.519	0.396	0.446	0.285	0.692	n.a.	0.636
1997	0.470	0.497	0.406	0.439	0.256	0.714	0.755	0.658
1998	0.499	0.531	0.454	0.470	0.256	0.718	0.408	0.879
1999	0.497	0.520	0.494	0.473	0.397	0.724	0.335	0.714

Source: Figures computed from data obtained from World Bank World Development Indicators (2000) and ECCB Annual Statistical Digest
N.B. British Virgin Islands excluded due to missing data.

Table 2.3 Health care expenditure as a % of total government expenditure

	Barbados	Dominica	St. Lucia	Grenada	St. Vincent	St. Kitts & Nevis	Antigua & Barbuda	British Virgin Islands
1990	0.593	0.816	0.584	0.647	1.000	0.813	0.755	0.448
1991	0.740	0.936	0.664	0.924	0.935	0.979	1.000	0.541
1992	0.548	0.830	0.551	0.928	0.874	1.000	0.963	0.476
1993	0.563	0.808	0.490	0.851	0.831	0.961	1.000	0.517
1994	0.595	0.920	0.603	0.732	0.847	1.000	0.875	0.622
1995	0.567	0.887	0.599	0.828	0.830	0.680	1.000	0.753
1996	0.489	0.895	0.583	0.822	0.816	0.722	0.351	1.000
1997	0.425	0.757	0.572	0.810	0.720	0.678	0.304	1.000
1998	0.386	0.620	0.446	0.606	0.639	0.531	0.231	1.000
1999	0.385	0.502	0.396	0.540	0.640	0.489	0.230	1.000

Source: Figures computed from data obtained from World Bank World Development Indicators (2000)
N.B. Anguilla and Montserrat excluded due to missing data.
Additional countries (for example, Barbados) or regions (for example, Latin America) were included where possible for comparative purposes

Table 2.4 Number of persons unemployed under 25 years as a percentage of total unemployment

	United States	Middle Income Countries	Latin America and the Caribbean	Barbados	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	Antigua & Barbuda	British Virgin Islands
1990	1.000	0.899	0.798	0.723	0.804	0.188	0.495	0.000	0.125	0.394	0.743
1991	1.000	0.907	0.813	0.668	0.742	0.173	0.457	0.000	0.115	0.363	0.686
1992	1.000	0.915	0.829	0.765	0.679	0.159	0.418	0.000	0.105	0.333	0.628
1993	1.000	0.914	0.828	0.840	0.685	0.160	0.422	0.000	0.106	0.335	0.634
1994	1.000	0.911	0.822	0.861	0.741	0.000	0.633	0.036	0.145	0.381	0.688
1995	1.000	0.905	0.809	0.808	0.784	0.000	0.668	0.027	0.144	0.398	0.727
1996	1.000	0.901	0.802	0.865	0.786	0.022	0.615	0.000	0.122	0.385	0.727
1997	1.000	0.897	0.794	0.905	0.817	0.460	0.640	0.000	0.127	0.400	0.756
1998	0.849	0.758	0.666	1.000	0.726	0.249	0.294	0.000	0.113	0.356	0.671
1999	0.953	0.847	0.740	1.000	0.845	0.290	0.342	0.000	0.131	0.414	0.782

Source: Figures computed from data obtained from the International Labour Organisation
N.B. St. Kitts and Nevis and Montserrat excluded due to missing data.
Indices - note that 1.000 indicates that USA, in this case, has a lower level of unemployment among 25 year olds

Table 2.5 Population density

	United States	Middle Income Count.	Latin America and the Carib.	Barb.	Dom	St. Lucia	Gren.	SVG	Anguilla	St. Kitts & Nevis	Antigua &Barbuda	Mont.	BVI
1990	0.991	0.976	1.000	0.000	0.877	0.669	0.580	0.550	0.867	0.846	0.802	0.865	0.854
1991	0.990	0.974	1.000	0.000	0.874	0.655	0.555	0.569	0.868	0.842	0.789	0.851	0.847
1992	0.991	0.998	1.000	0.000	0.876	0.653	0.555	0.570	0.865	0.837	0.788	0.853	0.845
1993	0.992	0.998	1.000	0.000	0.874	0.650	0.555	0.564	0.860	0.834	0.787	0.861	0.841
1994	0.992	0.998	1.000	0.000	0.872	0.644	0.553	0.563	0.855	0.837	0.784	0.863	0.837
1995	0.992	0.998	1.000	0.000	0.871	0.637	0.550	0.560	0.849	0.836	0.780	0.861	0.834
1996	0.992	0.998	1.000	0.000	0.871	0.631	0.548	0.558	0.842	0.842	0.777	0.907	0.829
1997	0.993	1.000	1.000	0.000	0.872	0.627	0.547	0.558	0.821	0.851	0.777	0.939	0.827
1998	0.992	1.000	1.000	0.000	0.871	0.622	0.546	0.559	0.812	0.854	0.774	0.982	0.823
1999	0.992	1.000	1.000	0.000	0.871	0.617	0.543	0.558	0.804	0.857	0.771	0.962	0.819

Source: Figures computed from data obtained from the World Bank World Development Indicators (2000)
Note: 1.000 for Latin America indicates that it has a comparatively lower level of population density while Barbados' has a comparatively higher level of population density. High levels of population density place pressure on domestic infrastructure and therefore the higher the index the lower the level of population density.

Table 2.6 Gross international reserves in months of import

	United States	Middle Income Countries	Latin America and the Caribbean	Barb.	Dom.	St. Lucia	Gren.	St. Vinc.	St. Kitts & Nevis	Antigua & Barbuda
1990	0.679	0.679	1.000	0.250	0.143	0.250	0.214	0.393	0.214	0.000
1991	0.500	0.563	1.000	0.031	0.188	0.188	0.094	0.188	0.125	0.000
1992	0.273	0.545	1.000	0.273	0.121	0.091	0.212	0.273	0.273	0.000
1993	0.333	0.667	1.000	0.262	0.190	0.190	0.214	0.286	0.310	0.000
1994	0.281	0.781	1.000	0.406	0.000	0.156	0.313	0.250	0.375	0.000
1995	0.121	0.697	1.000	0.242	0.030	0.061	0.273	0.121	0.182	0.000
1996	0.125	0.650	1.000	0.400	0.100	0.075	0.200	0.150	0.150	0.000
1997	0.000	0.657	1.000	0.314	0.114	0.114	0.257	0.114	0.200	0.000
1998	0.033	0.967	1.000	0.300	0.233	0.200	0.300	0.233	0.333	0.000
1999	0.033	0.967	1.000	0.300	0.233	0.200	0.300	0.233	0.667	0.000

Source: Figures computed from data obtained from the World Bank World Development Indicators (2000)
N.B. Anguilla, Montserrat and the British Virgin Islands excluded due to missing data.
Note: A 1.000 for Latin America indicates that it has a comparatively higher level of gross international reserves (in months of imports) while Antigua and Barbuda's is the lowest among the countries studied. High levels of reserves allow the country to effectively deal with shocks to its major foreign exchange sectors. Thus, the higher the index the better.

Table 2.7 Top three exports as a percentage of total exports

	United States	Barbados	Dominica	St. Lucia	Grenada	St. Vincent	St. Kitts & Nevis
1990	1.000	0.380	0.148	0.177	0.328	0.345	0.000
1991	1.000	0.381	0.150	0.178	0.329	0.346	0.000
1992	1.000	0.382	0.150	0.178	0.330	0.347	0.000
1993	1.000	0.381	0.149	0.177	0.329	0.339	0.000
1994	1.000	0.383	0.152	0.199	0.331	0.425	0.000
1995	1.000	0.383	0.118	0.217	0.331	0.418	0.000
1996	1.000	0.382	0.125	0.178	0.438	0.458	0.000
1997	1.000	0.389	0.190	0.224	0.454	0.482	0.000
1998	1.000	0.531	0.151	0.216	0.642	0.411	0.000
1999	1.000	0.531	0.152	0.217	0.611	0.480	0.000

Source: Figures computed from data obtained from the IMF Article IV Consultation Documents, ECCB Annual Statistical Digest N.B. Anguilla, Antigua and Barbuda, Montserrat and the British Virgin Islands excluded due to missing data.

Table 2.8 Top three sectors as a percentage of GDP

	United States	Barbados	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Mont.	British Virgin Islands
1990	0.163	1.000	0.167	0.334	0.299	0.270	0.000	0.284	0.352	0.108	0.060
1991	0.137	1.000	0.151	0.345	0.295	0.278	0.000	0.246	0.339	0.247	0.030
1992	0.127	1.000	0.153	0.333	0.309	0.259	0.000	0.299	0.328	0.262	0.012
1993	0.144	1.000	0.173	0.357	0.325	0.272	0.019	0.325	0.328	0.347	0.000
1994	0.183	1.000	0.222	0.440	0.375	0.342	0.041	0.360	0.363	0.376	0.000
1995	0.199	1.000	0.274	0.458	0.399	0.323	0.076	0.370	0.380	0.395	0.000
1996	0.198	1.000	0.288	0.478	0.408	0.350	0.122	0.369	0.400	0.409	0.000
1997	0.199	1.000	0.296	0.503	0.406	0.353	0.119	0.375	0.401	0.166	0.000
1998	0.198	1.000	0.300	0.507	0.417	0.354	0.133	0.389	0.400	0.056	0.000
1999	0.196	1.000	0.301	0.530	0.432	0.344	0.121	0.362	0.399	0.169	0.000

Source: Figures computed from data obtained from the ECCB National Account Statistics, ECCB Annual Statistical Digest and the Development
Planning Unit (the British Virgin Islands). The 0.000 indicates that British Virgin Islands proportion of GDP accounted for by its top three sectors was the highest among the countries considered. However, it is generally recognised that the more diversified an econ-

Table 2.9 **Employment in the top three sectors as a percentage of total employment**

	United States	Barbados	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	Montserrat	British Virgin Islands
1990	0.028	1.000	0.378	0.340	0.401	0.362	0.000	0.357	0.479
1991	0.028	1.000	0.378	0.340	0.401	0.362	0.000	0.356	0.479
1992	0.028	1.000	0.378	0.340	0.401	0.362	0.000	0.356	0.479
1993	0.028	1.000	0.378	0.340	0.401	0.362	0.000	0.356	0.479
1994	0.028	1.000	0.378	0.366	0.358	0.362	0.000	0.356	0.479
1995	0.000	1.000	0.391	0.393	0.372	0.376	0.022	0.370	0.490
1996	0.000	1.000	0.392	0.362	0.447	0.376	0.022	0.370	0.490
1997	0.000	1.000	0.392	0.406	0.447	0.376	0.022	0.370	0.490
1998	0.000	1.000	0.391	0.335	0.406	0.376	0.022	0.370	0.490
1999	0.000	1.000	0.392	0.349	0.406	0.376	0.022	0.370	0.490

Source: Figures computed from data obtained from the International Labour Organisation. N.B. St. Kitts and Nevis excluded due to missing data Note: The 1.000 for Barbados indicates that employment in its top three sectors is comparatively lower.

Table 2.10: **Food poverty levels (growth in price of food relative to average growth in income)**

	United States	Middle Income Countries	Latin America and the Caribbean	Barb.	Dom	St. Lucia	Gren.	SVG	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Monts.
1990	0.805	0.945	0.945	0.882	n.a.	0.850	0.945	0.634	0.908	1.000	0.000	0.530
1991	0.410	0.421	0.421	0.380	1.000	0.292	0.497	0.435	0.430	0.319	0.000	0.044
1992	0.869	0.830	0.830	0.909	0.641	0.829	0.858	0.848	0.886	1.000	0.000	0.471
1993	0.906	0.902	0.902	1.000	0.971	0.990	0.799	0.866	0.960	0.914	0.000	0.701
1994	0.784	0.787	0.787	0.862	1.000	0.707	0.797	0.893	0.830	0.859	0.000	0.372
1995	0.662	0.686	0.686	0.661	0.688	0.436	0.645	0.698	0.851	0.808	1.000	0.000
1996	0.673	0.746	0.746	0.647	0.738	0.956	0.767	0.476	0.790	0.724	1.000	0.000
1997	0.844	0.852	0.852	0.550	0.878	0.992	0.951	0.977	0.942	0.620	1.000	0.000
1998	0.350	0.378	0.378	1.000	0.421	0.000	0.557	0.838	0.852	0.624	0.335	0.584
1999	0.543	0.562	0.562	1.000	0.826	0.389	0.815	0.982	0.896	0.789	0.536	0.000

Source: Figures computed from data obtained from the World Bank World Development Indicators (2000)
N.B. The British Virgin Islands were excluded due to missing data.

Table 2.11 **Urban population as a percentage of population**

	United States	Middle Income Countries	Latin America and the Caribbean	Barb.	Dom	St. Lucia	Gren.	St. Vin.	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	1.000	0.668	0.898	0.259	0.817	0.073	0.000	0.156	n.a.	0.010	0.029	n.a.	n.a .
1991	1.000	0.675	0.905	0.264	0.819	0.066	0.000	0.186	n.a.	0.000	0.024	n.a.	n.a.
1992	1.000	0.682	0.913	0.277	0.823	0.068	0.010	0.223	n.a.	0.000	0.029	n.a.	n.a.
1993	1.000	0.694	0.920	0.292	0.831	0.072	0.024	0.263	n.a.	0.000	0.034	n.a.	n.a.
1994	1.000	0.703	0.928	0.304	0.835	0.074	0.033	0.299	n.a.	0.000	0.038	n.a.	n.a.
1995	1.000	0.710	0.933	0.316	0.838	0.076	0.043	0.335	n.a.	0.000	0.043	n.a.	n.a.
1996	1.000	0.721	0.939	0.326	0.842	0.078	0.052	0.364	n.a.	0.000	0.047	n.a.	n.a.
1997	1.000	0.725	0.944	0.339	0.847	0.080	0.061	0.395	n.a.	0.000	0.052	n.a.	n.a.
1998	1.000	0.728	0.946	0.347	0.848	0.082	0.070	0.422	n.a.	0.000	0.054	n.a.	n.a.
1999	1.000	0.728	0.946	0.347	0.848	0.082	0.070	0.422	n.a.	0.000	0.054	n.a.	n.a.

Source: Figures computed from data obtained from the World Bank World Development Indicators (2000)
N.B. Anguilla, Montserrat and the British Virgin Islands were exluded due to missing data.
The 1.000 for the USA indicates that it has a higher percentage of its population living in urban areas, while St. Kitts and Nevis has the lowest proportion of urban dwellers among the countries studied.

aTable 2.12 **Economic – Physical and human capital investments - Gross capital formation**

	United States	Middle Income Countries	Latin America and the Caribbean	Barb.	Dom.	St. Lucia	Gren.	St. Vin	Anguilla.	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.000	n.a.	n.a.	0.041	0.484	0.285	0.670	0.403	0.536	1.000	0.579	0.861	0.587
1991	0.000	n.a.	n.a.	0.023	0.581	0.361	0.788	0.492	0.639	0.830	0.686	1.000	0.696
1992	0.091	n.a.	n.a.	0.000	0.394	0.322	0.399	0.286	0.459	0.536	0.440	0.601	1.000
1993	0.063	n.a.	n.a.	0.000	0.496	0.493	0.621	0.421	0.457	1.000	0.570	0.825	0.918
1994	0.063	n.a.	n.a.	0.000	0.538	0.502	0.766	0.526	0.468	0.855	0.613	0.815	1.000
1995	0.058	n.a.	n.a.	0.000	0.648	0.390	0.604	0.519	0.515	1.000	0.694	0.634	0.546
1996	0.076	n.a.	n.a.	0.000	0.602	0.420	0.735	0.512	0.548	1.000	0.807	0.792	0.444
1997	0.086	n.a.	n.a.	0.000	0.635	0.433	0.721	0.511	0.412	0.904	0.734	1.000	0.402
1998	0.059	n.a.	n.a.	0.000	0.370	0.286	0.513	0.397	0.398	0.626	0.587	1.000	0.114
1999	0.058	n.a.	n.a.	0.000	0.354	0.293	0.562	0.402	0.517	0.528	0.628	1.000	0.207

Source: Figures computed from data obtained from the World Bank World Development Indicators (2000), ECCB National Account Statistics
The "1.000" for St. Kitts and Nevis indicates that in that year they had a comparatively higher ratio of gross capital investments among the countries studied, while Barbados had the lowest ratio.

Table 2.13 **Productivity (Output/Employment)**

	United States	Middle Income Countries	Latin America and the Caribbean	Barb.	Dom.	St. Lucia	Gren.	St. Vin	Ang.	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.840	0.851	1.000	0.575	0.900	0.818	0.957	0.870	0.673	0.904	0.922	0.000	0.779
1991	0.840	0.851	1.000	0.575	0.900	0.818	0.957	0.870	0.673	0.904	0.922	0.000	0.779
1992	0.666	0.351	0.879	0.000	0.539	1.000	0.378	0.954	0.965	0.574	0.354	0.531	0.848
1993	0.568	0.204	0.528	0.935	0.357	0.262	0.000	0.346	1.000	0.764	0.725	0.432	0.487
1994	0.887	0.782	0.880	0.924	0.823	0.825	0.000	0.693	0.952	0.908	0.927	0.791	1.000
1995	0.469	0.376	0.296	0.425	0.347	0.052	1.000	0.598	0.130	0.417	0.100	0.000	0.476
1996	0.925	0.873	0.867	0.820	0.891	0.785	0.884	0.822	0.906	0.994	1.000	0.000	0.970
1997	0.783	0.703	0.762	0.454	0.753	0.798	0.829	0.792	1.000	0.936	0.875	0.000	0.937
1998	0.553	0.356	0.484	0.373	0.770	0.715	0.172	1.000	0.960	0.672	0.871	0.000	0.756
1999	0.224	0.224	0.224	0.622	0.309	0.000	0.992	0.599	1.000	0.487	0.654	0.078	0.650

Source: World Bank World Development Indicators (2000), ECCB National Account Statistics and International Labour Organisation
"1.000" for Latin America implies that in that year they had a higher output to employment ratio.
The indices are based on growth rates and as a result show a relatively higher level of variation compared to previous tables.

Table 2.14 **Savings**

	United States	Middle Income Countries	Latin America and the Caribbean	Barb.	Dom.	St. Lucia	Gren.	St. Vin.	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Monts.	British Virgin Islands
1990	0.425	0.692	0.600	0.445	0.446	0.286	0.687	0.000	0.757	0.737	1.000	0.453	0.605
1991	0.408	0.672	0.551	0.394	0.446	0.286	0.687	0.000	0.757	0.737	1.000	0.453	0.605
1992	0.178	0.491	0.330	0.296	0.405	0.326	0.429	0.333	0.000	1.000	0.935	0.625	0.712
1993	0.181	0.448	0.330	0.302	0.374	0.451	0.299	0.000	0.070	1.000	0.973	0.850	0.692
1994	0.305	0.558	0.442	0.488	0.223	0.574	0.905	0.000	0.274	1.000	0.972	0.672	0.661
1995	0.000	0.238	0.132	0.126	0.053	0.295	0.251	0.123	0.214	0.656	1.000	0.743	0.291
1996	0.127	0.207	0.170	0.148	0.161	0.184	0.202	0.214	0.000	0.256	0.364	1.000	0.160
1997	0.196	0.293	0.245	0.227	0.365	0.204	0.217	0.079	0.000	0.538	0.566	1.000	0.345
1998	0.024	0.195	0.087	0.014	0.353	0.161	0.000	0.043	0.013	0.908	1.000	0.579	0.379
1999	0.559	0.658	0.596	0.554	0.669	0.574	0.714	0.633	0.000	0.521	1.000	0.656	0.422

Source: Figures computed from data obtained from the World Bank World Development Indicators (2000), ECCB National Account Statistics 1.000 for St. Kitts and Nevis indicates that in that year it had comparatively the highest savings ratio.

Table 2.15 **Concentration of credit in top three sectors**

	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Montserrat
1990	0.534	0.466	0.605	1.000	0.432	0.643	0.867	0.000
1991	0.644	0.430	0.672	1.000	0.362	0.629	0.869	0.000
1992	0.197	0.358	0.763	1.000	0.000	0.969	0.971	0.275
1993	0.497	0.533	0.674	0.924	0.000	1.000	0.924	0.032
1994	0.435	0.598	0.603	0.985	0.000	1.000	0.631	0.141
1995	0.775	0.581	0.427	0.644	0.000	1.000	0.363	0.099
1996	0.619	0.302	0.465	0.533	0.000	1.000	0.361	0.114
1997	0.667	0.436	0.644	0.416	0.000	1.000	0.413	0.183
1998	0.803	0.510	0.583	0.288	0.020	1.000	0.471	0.000
1999	0.766	0.540	0.481	0.364	0.000	1.000	0.537	0.366

Source: Figures computed from data obtained from the ECCB Annual Statistical Digest
N.B. The British Virgin Islands were excluded due to missing data. The 1.000 for St. Kitts and Nevis indicates that it had a comparatively lower level of credit concentration. 0 indicates that the country had a higher concentration ratio

Table 2.16: **Output of sector per unit of credit**

Year	United States	Dominica	St. Lucia	Grenada	St. Vincent	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	Montserrat
1990	0.685	0.744	0.749	0.833	1.000	0.000	0.260	0.756	0.405
1991	0.869	0.714	0.832	0.988	1.000	0.000	0.337	0.895	0.613
1992	0.892	0.653	0.775	0.913	1.000	0.000	0.231	0.802	0.637
1993	0.842	0.454	0.520	0.460	0.889	0.000	0.208	0.762	1.000
1994	0.655	0.250	0.341	0.382	0.559	0.000	0.058	0.617	1.000
1995	0.696	0.262	0.351	0.429	0.553	0.000	0.042	0.450	1.000
1996	0.933	0.440	0.396	0.466	0.626	0.000	0.053	0.523	1.000
1997	1.000	0.462	0.385	0.365	0.645	0.000	0.137	0.472	0.967
1998	0.467	0.229	0.172	0.152	0.332	0.000	0.026	0.196	1.000
1999	0.322	0.187	0.116	0.121	0.218	0.000	0.015	0.131	1.000

Source: Figures computed from data obtained from the ECCB Annual Statistical Digest and ECCB National Account Statistics
N.B. The British Virgin Islands were excluded due to missing data. The 1.000 for a given country indicates the highest output credit ratio for that year, while 0 indicates the lowest output credit ratio.

Table 3.1 Employment status in the OECS

Employment Status	OECS Average (%)*
Paid Employee: Government	23.35
% Male	22.13
% Female	25.23
Paid Employee: Private	49.92
% Male	48.33
% Female	51.77
Unpaid Worker	1.33
% Male	1.00
% Female	1.73
Employer	6.27
% Male	8.07
% Female	3.83
Own Account Worker	17.88
% Male	19.02
% Female	16.38
Not Stated/ Other	1.17
% Male	1.35
% Female	0.93

***Source ILO (2001). Data does not sum to 100% due to rounding. The data collection period for the individual member states ranges from 1991 (Antigua & Barbuda, St. Kitts and Nevis and St. Vincent and the Grenadines) to 1998 for Grenada, 1997 for Dominica, and 1998 for St. Lucia.**

Table 3.2 **Contribution to GDP by sector**

Contribution to GDP (%) by Sector	Ang	Ant	BVI	Dom	Gren	Mont	SKN	STL	SVG
Year	1999	1999	2000	1999	1999	1999	2000	1999	1999
Agriculture/ Fishing	3.0	4.0	0.0	19.0	9.0	2.0	5.0	8.0	11.0
Manufacturing/ Mining/ Quarrying	2.0	5.0	1.0	7.0	9.0	1.0	12.0	7.0	7.0
Construction	16.0	13.0	3.0	8.0	8.0	27.0	19.0	9.0	10.0
Hotels/ Restaurants	32.0	13.0	14.0	3.0	8.0	2.0	5.0	13.0	2.0
Banks/ Insurance	13.0	12.0	37.0	13.0	9.0	9.0	13.0	10.0	9.0
Government Services	14.0	16.0	3.0	18.0	14.0	25.0	15.0	12.0	16.0
Other	21.0	39.0	42.0	33.0	44.0	43.0	31.0	42.0	45.0

Source: ECCB (2000)

Table 3.4 Occupation by gender in the OECS

Employment by Occupation (%)	Ang*	Ant	BVI	Dom	Gren	Mont*	SKN	STL	SVG
Year	-	1991	1991	1997	1996	-	1991	1999	1991
Higher Level Occupations*		20.3	26.5	18.5	19.8	-	19.2	18.0	17.7
%Male		20.8	25.8	13.3	15.9		17.9	14.0	13.9
%Female	-	19.6	27.3	25.3	25.0		20.6	22.6	24.8
Clerks	-	13.4	11.7	7.3	9.2	-	11.4	8.6	7.6
%Male		5.2	3.9	3.3	3.9		5.8	3.6	3.3
% Female		23.0	21.8	12.5	16.6		18.4	14.3	15.7
Service & Shop Sales	-	19.2	17.9	13.5	15.1	-	12.9	17.8	11.0
%Male		14.4	9.9	8.7	13.9		8.8	12.0	8.3
%Female		24.8	28.3	19.9	16.7		17.9	24.3	16.1
Agriculture/ Fishing	-	1.7	3.2	19.9	11.3	-	2.5	16.8	13.7
%Male		2.8	5.4	26.6	14.4		4.1	22.1	17.7
%Female		0.5	0.3	11.1	7.1		0.7	10.9	6.3
Craft	-	16.5	20.6	15.8	20.8	-	17.0	14.6	16.1
%Male		27.7	34.0	23.6	30.7		26.5	22.1	21.5
%Female		3.4	3.0	5.7	7.3		5.1	6.1	6.0
Plant, Machine Operators & Assemblers	-	5.9	5.3	4.7	4.2	-	10.7	7.1	6.1
%Male		9.6	8.9	7.9	7.0		10.2	10.1	8.7
% Female		1.6	0.5	0.6	0.4		11.2	3.6	1.3
Elementary	-	20.3	15.3	19.3	17.1	-	24.2	14.8	27.7
%Male		16.8	12.4	15.6	12.0		24.5	13.6	26.6
%Female		24.3	19.1	24.1	24.0		23.9	16.3	29.7
Other	-	2.7	0.2	0.9	2.5	-	2.2	2.3	0.1

***Higher level occupations include: Legislators, Senior Officials, Managers, Professionals, Technicians and Associated Professionals**
Source: ILO (2001)
Data for Anguilla and Montserrat are not available.

Table 3.5 Gini coefficients for a selection of OECS Member States

Country	Gini Coefficient
Grenada	0.45
St. Lucia	0.50
St. Vincent & the Grenadines	0.56
St. Kitts & Nevis	0.40
Dominica	0.49
Antigua	0.53

Source:: Thomas (1999)

Table 3.6 Selected labour market information

	Ang	Ant	Dom	Gren	SKN	STL	SVG	USA	UK
YEAR	1998	1998	1998	1996	1998	1999	1997	2001	2001
Number of ILO Conventions Ratified	-	15	21	28	8	28	16	14	84
Number of Unions	4	5	6	6	1	8	5	-	-
Number of Union Members (000s)	-	20	5	-	3	7	6	-	-
Industrial Disputes	133	231	14	-	54	-	9	-	-

Source: ILO (2001)

Table 3.7 Work permits granted in the OECS

Work Permits Granted by Occupation (%)	Ang	Ant	BVI	Dom	Gren	SKN	STL	SVG
Year	1998	1991	1991	1997	1996	1991	1999	1991
Higher Level Occupations*	25.8	11.2	13.3	-	67.1	69.1	63.9	77.6
Clerks	4.8	12.7	3.4	-	3.7	0	0	0.6
Sales	4.8	-	8.7	-	6.3	0	0	13.8
Agriculture	26.1	28.8	33.4	-	~	0	0	0
Craft	2.1	4.9	3.2	-	0	0	0	0
Production, Construction & Transport	36.4	24.0	38.3	-	7.1	23.2	0	8.0
Other	0.0	18.5	0	-	15.8	7.7	36.1	0
Total (nos.)	667	4771	4130	530	493	337	1826	174

***Higher Level Occupations include Professional, Technical, Administrative and Managerial Occupations**
~ Included with Sales
Source: ILO (2001)

Table 3.8 Unemployment and education levels

	BVI	Dom	SL	SVG
Year	1991	1997	1999	1991
% of Employed with only primary education	36.0%	67.9%	46.5%	69.1%
% of Unemployed with only primary education	40.6%	73.6%	45.6%	74.8%

Source: ILO (2001)

Table 3.9 Male/Female participation rates in parliamentary assemblies, OECS

Country	Year / Gender								
	% Male	% Male	% Male	% Female	% Female	% Female	Ratio M:F	Ratio M:F	Ratio M:F
	1985	1992	1996	1985	1992	1996	1985	1992	1996
Anguilla	90.0	100.0	n.a.	10.0	0.0	n.a.	9.0	all male	n.a.
Antigua	100.0	100.0	100.0	0.0	0.0	0.0	all male	all male	all male
BVI	100.0	91.7	n.a.	0.0	8.3	n.a.	all male	11.0	n.a.
Dominica	87.1	83.9	90.0	12.9	5.0	10.0	6.8	16.8	9.0
Grenada	71.4	93.3	73.3	28.6	1.0	26.7	2.5	93.3	2.7
Montserrat	84.6	69.2	83.4	15.4	30.8	16.6	5.5	2.2	5.0
St. Kitts/Nevis	93.3	93.3	86.7	6.7	1.0	13.3	13.9	93.3	6.5
St. Lucia	96.6	86.2	76.5	3.4	4.0	23.5	28.4	21.6	3.3
St. Vincent	100.0	83.3	89.5	0.0	2.0	10.5	all male	41.7	8.5

Source: UNECLAC 2001

Table 4.1 Percentage distribution of highest level of education of household heads, St. Kitts, St. Lucia, St. Vincent, Grenada.

Level of Education	St. Kitts	St. Lucia	St. Vincent	Grenada
Nursery/Kinder.	0.0 (0)	0.6 (3)	0.0 (0)	0.1 (3)
Primary	24.5 (215)	78.4 (422)	81.8 (382)	72.8 (687)
Secondary	42.5 (373)	12.8 (69)	14.1 (66)	14.8 (140)
Post Secondary	5.2 (46)	3.2 (17)	1.7 (8)	2.7 (26)
University	5.4 (47)	3.0 (16)	1.5 (7)	2.2 (21)
Other	21.4 (188)	2.0 (11)	0.6 (3)	1.3 (12)
Not Stated	0.9 (8)	0.0 (0)	0.0 (0)	5.8 (55)
TOTAL	100.0 (877)	100.0 (538)	100.0 (466)	100.0 (944)

Source: KAIRI, Poverty Assessment Surveys, various years 1995 to 2000.

Table 4.2: Percentage distribution of level of qualifications of household heads, St. Kitts, St. Lucia, St. Vincent, Grenada

Level of Qualifications	St. Kitts	St. Lucia	St. Vincent	Grenada
None	58.3 (511)	45.9 (246)	83.1 (388)	70.1 (662)
School Leaving/Standard 6	16.2 (142)	36.8 (197)	6.2 (29)	4.9 (46)
CXC Basic	2.6 (23)	1.1 (6)	0.0 (0)	2.3 (22)
GCE O / CXC General 1 or 2	2.5 (22)	3.4 (18)	2.4 (11)	5.9 (56)
GCE O / CXC General 3 or 4; SC Grade III	2.2 (19)	2.8 (15)	1.9 (9)	0.3 (3)
GCE O / CXC General 5 +; SC Grades I and II	2.2 (19)	0.6 (3)	1.5 (7)	0.9 (9)
GCE A / HSC 1 or 2	0.2 (2)	0.2 (1)	0.0 (0)	0.5 (5)
GCE A / HSC 3 +	0.2 (2)	0.4 (2)	0.2 (1)	0.4 (4)
Diploma/or Equivalent; Certificate of Achievement	6.6 (58)	4.1 (22)	2.8 (13)	2.9 (27)
Degree	4.1 (36)	2.4 (13)	1.5 (7)	1.4 (13)
Other	4.8 (42)	2.4 (13)	0.4 (2)	2.1 (20)
Not Stated	0.1 (1)	0.0 (0)	0.0 (0)	8.1 (77)
TOTAL	100.0 (877)	100.0 (536)	100.0 (467)	100.0 (944)

Source: KAIRI, Poverty Assessment Surveys, various years 1995 to 2000.

Table 4.3 Percentage distribution of highest level of education of household heads in and out of general poverty (St. Kitts, St. Lucia, St. Vincent, Grenada)

Level of Education	St. Kitts		St. Lucia		St. Vincent		Grenada	
	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor
Nursery/Kin-der./Infant	0.0 (0)	0.0 (0)	0.0 (0)	0.6 (3)	0.0 (0)	0.0 (0)	0.4 (1)	0.3 (2)
Primary	24.8 (35)	24.5 (180)	92.4 (61)	76.5 (361)	92.2 (119)	77.8 (263)	78.2 (172)	71.1 (515)
Secondary	43.3 (61)	42.4 (312)	6.1 (4)	13.8 (65)	6.2 (8)	17.2 (58)	11.4 (25)	15.9 (115)
Post Secondary	1.4 (2)	6.0 (44)	0.0 (0)	3.6 (17)	0.8 (1)	2.1 (7)	1.8 (4)	3.0 (22)
University	0.7 (1)	6.3 (46)	1.5 (1)	3.2 (15)	0.0 (0)	2.1 (7)	1.4 (3)	2.5 (18)
Other / Not Stated	29.8 (42)	20.9 (154)	0.0 (0)	2.3 (11)	0.8 (1)	0.9 (3)	6.8 (15)	7.2 (52)
TOTAL	100.0 (141)	100.0 (736)	100.0 (66)	100.0 (472)	100.0 (129)	100.0 (338)	100.0 (220)	100.0 (724)

Table 4.4 Percentage distribution of level of qualifications of general poor and non-poor heads of households, St. Kitts, St. Lucia, St. Vincent, Grenada

Level of Qualifications	St. Kitts	St. Lucia	St. Vincent	Grenada				
	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor	Poor	Non-Poor
None	71.6 (101)	55.7 (410)	60.0 (39)	43.9 (207)	95.3 (123)	78.4 (265)	78.6 (394)	67.3 (903)
School Leaving / Standard 6	17.7 (25)	15.9 (117)	35.4 (23)	36.9 (174)	3.1 (4)	7.4 (25)	3.6 (18)	5.7 (76)
CXC Basic	0.7 (1)	(3.0 (22)	1.5 (1)	1.1 (5)	0.0 (0)	0.0 (0)	5.0 (25)	4.4 (59)
GCE O / CXC Gen. 1 or 2	2.1 (3)	2.6 (19)	0.0 (0)	3.8 (18)	0.0 (0)	3.3 (11)	7.6 (38)	4.7 (130)
GCE O / CXC Gen. 3 or 4; SC Grade III	0.7 (1)	2.4 (18)	1.5 (1)	3.0 (14)	0.0 (0)	2.7 (9)	1.0 (5)	0.7 (10)
GCE O / CXC Gen. 5 + ; SC Grade I or II	0.0 (0)	2.6 (19)	0.0 (0)	0.6 (3)	0.0 (0)	2.1 (7)	0.4 (2)	2.5 (33)
GCE A / HSC 1 or 2	0.0 (0)	0.3 (2)	0.0 (0)	0.2 (1)	0.0 (0)	0.0 (0)	0.8 (4)	0.8 (11)
GCE A / HSC 3 +	0.0 (0)	0.3 (2)	0.0 (0)	0.4 (2)	0.0 (0)	0.3 (1)	0.0 (0)	0.6 (8)
Diploma or Equivalent; Cert. Of Achievement	3.5 (5)	7.2 (53)	1.5 (1)	4.5 (21)	0.8 (1)	3.6 (12)	1.6 (8)	3.6 (48)
Degree	0.7 (1)	4.8 (35)	0.0 (0)	2.8 (13)	0.0 (0)	2.1 (7)	0.4 (2)	1.6 (22)
Other	2.8 (4)	5.3 (39)	0.0 (0)	2.8 (13)	0.8 (1)	0.3 (1)	1.0 (5)	3.1 (41)
TOTAL	100.0 (141)	100.0 (736)	100.0 (65)	100.0 (471)	100.0 (129)	100.0 (338)	100.0 (501)	100.0 (1341)

Source: KAIRI, Poverty Assessment Surveys, various years 1995 to 2000.

Table 4.5 Possession of textbooks by poverty status (St. Kitts, St. Lucia, St. Vincent, Grenada)

Country	Possession of Textbooks				
	Yes, Exclusive Use	Yes, Shares	Some	None/Not Stated	TOTAL
St. Kitts					
General Poor	56.6	5.3	15.8	21.6	100.0
Non-Poor	65.8	3.0	11.7	18.7	100.0
St. Lucia					
General Poor	39.1	9.1	41.8	10.0	100.0
Non-Poor	55.0	10.9	28.6	5.5	100.0
St. Vincent					
General Poor	38.9	3.0	38.4	19.7	100.0
Non-Poor	52.2	3.0	33.6	11.2	100.0
Grenada					
General Poor	39.4	6.1	40.5	14.1	100.0
Non-Poor	62.5	5.4	25.3	6.8	100.0

Source: KAIRI, Poverty Assessment Surveys, various years 1995 to 2000.

Table 4.6 Sex disaggregation of enrolment

Country	Primary Enrolment		Country	Secondary Enrolment		Country	Tertiary Enrolment	
	Males	Females		Males	Females		Males	Females
Anguilla	-	-	Anguilla	-	-	Anguilla	-	-
Antigua (N=13079)	52.1	47.9	Antigua (N=5318)	43.3	56.7	Antigua (N=866)	-	-
BVI* (N=2532)	51.2	48.8	BVI* (N=1556)	-	-	BVI (N=1526)	-	-
Dominica (N=14320)	52.1	47.9	Dominica (N=6270)	43.6	56.4	Dominica (N=692)	40.0	60.0
Grenada** (N=23016)	53.1	46.9	Grenada** (N=7260)	41.4	58.6	Grenada (N=1114)	44.1	55.9
Montserrat			Montserrat		-	Montserrat	-	-
St. Kitts*** (N=6388)	52.3	47.7	St. Kitts (N=4688)	48.8	51.2	St. Kitts (N=891)	-	-
St. Lucia (N=31437)	52.7	47.3	St. Lucia (N=11540)	43.8	56.2	St. Lucia (N=3880)	16.6	83.4
St. Vincent (N=21347)	52.5	47.5	St. Vincent*** (N=7775)	40.9	59.1	St. Vincent (N=995)	38.5	61.5

Sources: Development Planning Unit, BVI; Ministry of Education, Antigua and Barbuda
St. Lucia Ministry of Education, Human Resource Development, Youth and Sports, Education Statistical Digest; Statistical Planning Unit, Ministry of Planning, St. Kitts-Nevis. Ministry of Education, St. Vincent and the Grenadines; Dominica Education Planning Unit
N.B: * - denotes 1999; ** - denotes 1995; * - denotes 1998**

Table 4.7 Sex disaggregation of enrolment in St. Vincent and The Grenadines, 1994/95 to 1997/98

Year	Primary School Enrolment		Secondary School Enrolment		Sixth Form	
	Male	Female	Male	Female	Male	Female
1994/95	52.4	47.6	40.0	60.0	NA	NA
1995/96	52.5	47.5	40.0	60.0	37.6	62.4
1996/97	52.6	47.4	40.8	59.2	36.2	63.8
1997/98	52.5	47.5	40.9	59.1	31.3	68.7

Source: Statistical Office, Central Planning Division: St. Vincent and The Grenadines Digest of Statistics For The Year 1998, No. 48

Table 4.8 Enrolment of pupils in secondary schools 1995-1998 (Age last birthday), St. Vincent and The Grenadines

Age	1995		1996		1997		1998	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 11	0.3	0.1	0.2	0.1	0.3	0.2	0.3	0.7
11	1.6	3.6	2.7	3.0	3.0	3.7	2.2	3.8
12	10.5	10.4	11.3	12.5	11.7	11.5	10.9	13.4
13	15.8	15.3	17.7	17.7	18.5	17.8	18.7	18.4
14	17.0	17.4	17.0	17.7	19.1	18.4	17.7	18.1
15	16.7	18.2	18.6	17.7	16.5	17.2	18.7	17.0
16	14.7	14.4	15.2	14.9	15.9	16.2	14.8	14.0
17	11.8	11.1	9.8	9.2	10.4	10.1	10.5	9.2
18	8.0	6.8	5.4	4.9	3.4	3.6	4.9	4.3
19 +	3.6	2.7	2.1	2.3	1.2	1.3	1.3	1.1
Total	3061	4584	3060	4579	3139	4551	3181	4594

Source: National Statistical Offices; Ministries of Education

Table 4.9 (a) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets (English Grades)

Anguilla	I	II	III	IV	V
1993	0.00	20.00	47.06	32.94	0.00
	(0.00)	(20.00)	(60.00)	(20.00)	(0.00)
1994	6.94	43.06	41.67	8.33	0.00
	(0.00)	(13.33)	(60.0)	(26.67)	(0.00)
1995	10.53	35.09	36.84	17.54	0.00
	(0.00)	(5.71)	(42.86)	(51.43)	(0.00)
1996	26.67	15.56	46.67	11.11	0.00
	(0.00)	(17.39)	(60.87)	(21.74)	(0.00)
1997	20.97	33.87	33.87	11.29	0.00
	(0.00)	(22.22)	(33.33)	(44.44)	(0.00)
1998	32.26	18.28	37.63	10.75	1.08
	(0.00)	(21.74)	(13.04)	(52.17)	(8.70)
1999	26.92	32.69	26.92	11.54	1.92
	(0.00)	(4.55)	(36.36)	(36.36)	(22.73)
2000	38.10	26.19	21.43	10.71	3.57
	(5.56)	(5.56)	(33.33)	(44.44)	(11.11)
Antigua					
1993	5.31	34.78	48.07	11.84	0.00
1994	6.09	47.07	40.75	6.09	0.00
	(0.00)	(20.51)	(56.41)	(20.51)	(2.56)
1995	9.89	41.51	37.85	10.32	0.43
	(2.17)	(32.61)	(43.48)	(15.22)	(6.52)
1996	26.90	38.96	28.76	5.38	0.00
	(5.77)	(46.15)	(38.46)	(9.62)	(0.00)
1997	13.88	36.96	31.27	17.39	0.50
	(7.95)	(30.68)	(31.82)	(28.41)	(1.14)
1998	23.96	20.66	28.65	21.70	5.03
	(3.88)	(8.74)	(33.98)	(38.83)	(13.59)
1999	13.42	18.49	25.53	32.24	10.31
	(2.11)	(5.26)	(13.68)	(52.63)	(25.26)
2000	23.41	17.07	23.84	23.13	12.13
	(4.80)	(13.60)	(22.40)	(35.20)	(20.80)
British Virgin Islands					
1993	6.82	47.73	38.64	6.82	0.00
	(0.00)	(12.50)	(62.50)	(25.00)	(0.00)
1994	17.54	59.65	21.05	1.75	0.00
	(0.00)	(52.63)	(42.11)	(0.00)	(5.26)
1995	10.14	49.28	37.68	2.90	0.00
	(0.00)	(22.22)	(55.56)	(22.22)	(0.00)
1996	27.06	47.06	23.53	2.35	0.00
	(5.00)	(35.00)	(35.00)	(25.00)	(0.00)
1997	16.67	47.62	33.33	2.38	0.00
	(14.29)	(42.86)	(28.57)	(14.29)	(0.00)
1998	20.00	25.00	38.75	15.00	1.25
	(0.00)	(10.00)	(40.00)	(40.00)	(10.00)
1999	31.82	25.00	30.68	11.36	1.14
	(23.08)	(15.38)	(30.77)	(23.08)	(7.69)
2000	16.49	21.65	42.27	19.59	0.00
	(0.00)	(25.00)	(25.00)	(25.00)	(25.00)

Table 4.9 (a) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets -cont'd (English Grades)

Dominica	I	II	III	IV	V
1993	5.00	22.07	47.24	23.97	1.72
	(0.00)	(15.09)	(43.53)	(40.09)	(1.29)
1994	8.49	35.01	38.65	16.64	1.21
	(2.67)	(24.89)	(53.78)	(18.22)	(0.44)
1995	7.63	33.38	39.22	19.16	0.60
	(0.92)	(11.98)	(47.47)	(36.87)	(2.76)
1996	11.56	35.47	38.59	13.91	0.47
	(0.51)	(23.47)	(50.00)	(26.02)	(0.00)
1997	16.75	43.28	29.84	9.95	0.17
	(0.92)	(24.77)	(47.25)	(26.15)	(0.92)
1998	25.25	23.39	31.19	17.80	2.37
	(3.21)	(13.90)	(36.90)	(37.97)	(8.02)
1999	18.50	21.95	30.98	23.76	4.66
	(3.87)	(5.16)	(28.39)	(41.29)	(20.65)
2000	16.52	21.64	31.11	25.35	5.25
	(5.00)	(11.88)	(24.38)	(47.50)	(10.00)
Grenada					
1993	1.91	18.07	48.37	30.75	0.90
	(0.83)	(3.31)	(47.93)	(44.63)	(3.31)
1994	3.13	25.92	47.52	22.14	1.30
	(0.00)	(15.07)	(55.48)	(28.08)	(1.37)
1995	3.02	24.84	42.44	28.94	0.76
	(0.49)	(13.66)	(52.68)	(31.71)	(1.46)
1996	9.69	33.61	40.00	16.29	0.41
	(1.41)	(19.25)	(53.25)	(24.88)	(0.94)
1997	6.63	28.62	39.75	24.29	0.71
	(2.36)	(17.92)	(53.77)	(25.00)	(0.94)
1998	8.36	13.01	26.06	36.24	14.94
	(2.03)	(11.17)	(42.13)	(37.56)	(6.60)
1999	10.14	12.03	22.17	36.09	18.55
	(0.82)	(6.56)	(25.82)	(47.13)	(18.44)
2000	8.643	11.26	21.32	38.88	18.20
	(0.00)	(6.11)	(16.16)	(48.91)	(28.38)
Montserrat					
1993	7.89	39.47	52.63	0.00	0.00
1994	9.80	56.86	31.37	1.96	0.00
1995	13.79	53.45	31.03	1.72	0.00
1996	45.45	24.24	27.27	3.03	0.00
1997	20.75	58.49	16.98	3.77	0.00
	(0.00)	(50.00)	(50.00)	(0.00)	(0.00)
1998	28.57	42.86	28.57	0.00	0.00
	(0.00)	(0.00)	(0.00)	(100.0)	(0.00)
1999	5.56	16.67	11.11	55.56	11.11
2000	30.43	39.13	17.39	13.04	0.00

Table 4.9 (a) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets - cont'd (English Grades)

St. Kitts-Nevis	I	II	III	IV	V
1993	4.26	28.98	48.30	18.18	0.28
	(0.00)	(0.00)	(66.67)	(33.33)	(0.00)
1994	4.62	43.56	41.58	10.23	0.00
	(0.00)	(27.78)	(50.00)	(16.67)	(5.56)
1995	10.38	38.99	39.31	11.32	0.00
	(0.00)	(26.92)	(42.31)	(30.77)	(0.00)
1996	18.23	38.46	35.33	7.98	0.00
	(0.00)	(35.71)	(35.71)	(28.57)	(0.00)
1997	7.33	40.22	37.78	14.22	0.44
	(6.06)	(39.39)	(24.24)	(30.30)	(0.00)
1998	22.49	22.49	30.96	21.16	2.90
	(7.89)	(7.89)	(26.32)	(39.47)	(18.42)
1999	7.08	15.80	29.25	2.78	14.39
	(0.00)	(7.50)	(10.00)	(60.00)	(20.00)
2000	22.04	20.42	23.43	20.65	12.53
	(10.71)	(10.71)	(25.00)	(42.86)	(10.71)
St. Lucia					
1993	4.93	38.45	41.53	14.99	0.09
	(0.66)	(16.70)	(50.55)	(30.77)	(1.32)
1994	5.91	36.32	43.44	14.18	0.15
	(0.00)	(27.78)	(50.00)	(16.67)	(5.56)
1995	5.23	31.43	43.83	19.09	0.42
	(1.16)	(20.08)	(41.51)	(31.85)	(5.41)
1996	20.38	39.12	31.94	8.28	0.27
	(3.29)	(32.91)	(47.59)	(15.19)	(1.01)
1997	9.24	34.48	40.64	15.40	0.24
	(0.97)	(20.85)	(45.95)	(30.89)	(1.35)
1998	21.42	18.25	30.90	22.72	6.36
	(2.11)	(6.34)	(28.40)	(41.55)	(20.66)
1999	9.27	15.85	26.26	36.21	12.19
	(1.03)	(8.28)	(20.69)	(43.10)	(25.86)
2000	16.05	16.90	25.33	31.47	9.85
	(3.79)	(7.24)	(30.00)	(41.38)	(15.86)

Table 4.9 (a) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets - cont'd (English Grades)

St.Vincent & the Grenadines	I	II	III	IV	V
1993	2.02	25.71	53.0	19.03	0.20
	(0.00)	(12.28)	(38.60)	(49.12)	(0.00)
1994	8.17	41.83	39.18	10.82	0.00
	(0.00)	(43.48)	(41.30)	(15.22)	(0.00)
1995	7.02	34.04	32.98	24.47	1.49
	(0.00)	(22.22)	(42.42)	(35.35)	(0.00)
1996	25.12	40.34	28.02	6.28	0.24
	(1.84)	(22.02)	(49.54)	(24.77)	(1.83)
1997	10.58	37.02	31.57	19.87	0.96
	(1.02)	(14.29)	(48.98)	(33.67)	(2.04)
1998	20.93	17.99	29.24	26.99	4.67
	(2.27)	(9.09)	(23.86)	(43.18)	(21.59)
1999	13.83	16.18	23.37	31.95	14.52
	(2.14)	(3.57)	(26.43)	(45.00)	(20.71)
2000	21.64	19.62	22.98	25.94	9.54
	(1.77)	(5.31)	(24.78)	(39.82)	(27.43)

Source Annual CXC Statistical Bulletins, 1993-2000, CXC Secretariat, Barbados

NB: a) Figures for the post 1997 period will not add up to 100.00% as the last of the new grading scheme - Grade VI - has not been included here.

b)Figures for private candidates have been included largely to ensure completeness of information coverage. The number of private candidates varies widely. In 2000 - expressed as a proportion of total number of candidates - these remain quite small (3-5%); they could nevertheless be as high as 24% - as in St. Lucia (Mathematics), or 18% - as in Anguilla (English A).

c) Note private candidates are in brackets.

Table 4.9 (b) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets (Mathematics Grades)

Anguilla	I	II	III	IV	V
1993	4.08	20.41	22.45	48.98	4.08
	(0.00)	(11.11)	(33.33)	(55.56)	(0.00)
1994	4.17	20.83	45.83	25.00	4.17
	(0.00)	(12.50)	(37.50)	(37.50)	(12.50)
1995	7.69	17.31	19.23	36.54	19.23
	(0.00)	(0.00)	(14.29)	(50.00)	(35.71)
1996	0.00	9.09	27.27	57.58	6.06
	(0.00)	(11.11)	(11.11)	(55.56)	(22.22)
1997	16.00	34.00	20.00	28.00	2.00
	(0.00)	(16.67)	(16.67)	(50.00)	(16.67)
1998	2.50	11.25	37.50	17.50	31.25
	(0.00)	(0.00)	(13.64)	(31.82)	(45.45)
1999	1.20	4.79	10.18	15.57	44.91
	(0.00)	(4.17)	(0.00)	(25.00)	(62.50)
2000	3.96	10.89	25.74	18.81	39.60
	(0.00)	(0.00)	(20.83)	(29.17)	(41.67)
Antigua					
1993	9.82	22.09	33.44	32.21	2.45
1994	10.32	25.21	32.38	27.51	4.58
	(2.94)	(23.54)	(35.29)	(23.53)	(14.71)
1995	9.66	25.00	21.59	38.64	5.11
	(0.00)	(12.12)	(18.18)	(27.27)	(42.42)
1996	11.85	16.82	23.46	38.63	9.24
	(0.00)	(10.34)	(27.59)	(44.83)	(17.24)
1997	9.69	20.42	20.68	37.70	11.52
	(1.39)	(13.89)	(25.00)	(45.83)	(13.89)
1998	5.47	11.16	13.79	30.42	34.14
	(0.00)	(2.04)	(10.20)	(28.57)	(50.00)
1999	1.12	5.13	17.63	22.32	49.78
	(0.00)	(1.25)	(11.25)	(28.75)	(53.75)
2000	10.31	21.06	32.30	20.34	15.82
	(0.00)	(8.25)	(15.46)	(34.02)	(40.21)
British Virgin Islands					
1993	26.09	43.48	26.09	4.35	0.00
	(0.00)	(0.00)	(0.00)	(75.00)	(25.00)
1994	23.68	55.26	7.89	10.53	2.63
	(0.00)	(20.00)	(13.33)	(26.67)	(40.00)
1995	36.67	33.33	16.67	13.33	0.00
	(0.00)	(33.33)	(0.00)	(44.44)	(22.22)
1996	17.78	28.89	15.56	33.33	4.44
	(0.00)	(20.00)	(20.00)	(60.00)	(0.00)
1997	7.55	39.62	18.87	30.19	3.77
	(0.00)	(5.88)	(23.53)	(58.82)	(11.76)
1998	1.89	16.98	33.96	30.19	16.98
	(0.00)	(0.00)	(8.33)	(41.67)	(50.00)
1999	0.00	5.66	26.42	43.40	24.53
	(0.00)	(0.00)	(0.00)	(0.00)	(100.00)
2000	13.89	41.67	19.44	11.11	13.89
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Table 4.9 (b) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets - cont'd (Mathematics Grades)

Dominica	I	II	III	IV	V
1993	7.37	24.47	35.00	31.58	1.58
	(0.00)	(8.94)	(29.27)	(56.91)	(4.88)
1994	7.36	24.25	30.52	33.51	4.36
	(1.52)	(13169)	(34.22)	(39.16)	(11.41)
1995	10.40	21.02	22.12	33.19	13.27
	(0.41)	(13.41)	(26.02)	(43.09)	(17.07)
1996	13.41	23.53	21.18	36.71	5.18
	(1.56)	(20.70)	(24.22)	(45.31)	(8.20)
1997	8.29	27.89	25.13	34.67	4.02
	(0.28)	(8.94)	(24.30)	(50.56)	(15.92)
1998	3.68	12.34	28.79	24.24	29.44
	(0.00)	(1.09)	(15.64)	(34.55)	(45.45)
1999	4.18	12.09	25.27	27.47	30.77
	(0.00)	(2.40)	(12.50)	(24.04)	(57.21)
2000	6.26	19.42	25.47	23.38	25.47
	(1.38)	(6.23)	(29.41)	(27.34)	(33.56)
Grenada					
1993	7.60	32.84	32.3	25.98	1.23
	(1.79)	(16.07)	(30.36)	(44.64)	(78.14)
1994	7.53	20.78	30.14	32.65	8.90
	(1.72)	(14.66)	(26.72)	(48.28)	(8.62)
1995	10.29	23.90	16.89	35.31	13.82
	(4.83)	(23.45)	(24.83)	(35.86)	(11.03)
1996	9.49	29.63	31.02	25.69	4.17
	(1.45)	(13.77)	(36.96)	(40.58)	(7.25)
1997	3.20	17.76	20.03	37.52	21.50
	(0.00)	(4.79)	(30.32)	(52.66)	(12.23)
1998	2.22	3.64	11.73	21.64	50.76
	(0.00)	(3.74)	(20.09)	(33.18)	(40.65)
1999	1.01	4.33	11.90	19.15	56.25
	(0.00)	(1.89)	(14.39)	(28.03)	(51.14)
2000	2.70	7.91	15.92	21.32	47.46
	(0.80)	(10.80)	(28.80)	(27.20)	(30.40)
Montserrat					
1993	19.23	28.85	34.62	15.38	1.92
	(0.00)	(0.00)	(0.00)	(100.0)	(0.00)
1994	14.55	34.55	32.73	16.36	1.82
	(0.00)	(33.33)	(66.67)	(0.00)	(0.00)
1995	9.72	22.22	30.56	29.17	3.33
	(0.00)	(22.22)	(33.33)	(33.33)	(11.11)
1996	0.00	50.0	35.29	11.76	2.94
	(0.00)	(0.00)	(0.00)	(100.0)	(0.00)
1997	5.77	32.69	30.77	28.85	1.92
	(0.00)	(12.50)	(12.50)	(75.00)	(0.00)
1998	0.00	0.00	33.33	33.33	33.33
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
1999	8.33	8.33	8.33	8.33	58.33
2000	5.88	11.76	29.41	23.53	29.41

Table 4.9 (b) - CXC performance by country, grade level - June sitting - public candidates; private candidates in brackets - cont'd (Mathematics Grades)

St. Kitts-Nevis	I	II	III	IV	V
1993	6.83	31.06	37.89	24.22	0.00
	(0.00)	(26.77)	(46.67)	(20.00)	(6.67)
1994	8.05	38.51	31.03	20.69	1.72
	(5.56)	(16.67)	(44.44)	(27.78)	(5.56)
1995	11.70	25.73	30.99	29.24	2.34
	(0.00)	(16.67)	(26.67)	(46.67)	(10.00)
1996	7.04	34.17	25.13	31.16	2.51
	(0.00)	(21.95)	(26.82)	(46.34)	(4.88)
1997	4.71	26.81	27.54	36.96	3.99
	(0.00)	(24.59)	(24.59)	(42.62)	(8.20)
1998	1.62	12.15	27.13	37.25	21.46
	(0.00)	(0.00)	(12.20)	(46.34)	(41.46)
1999	1.69	8.86	19.83	33.33	35.02
	(0.00)	(9.43)	(22.64)	(28.30)	(37.74)
2000	5.04	12.79	24.81	27.52	29.46
	(0.00)	(3.13)	(31.25)	(25.00)	(37.50)
St. Lucia					
1993	10.41	31.67	34.06	22.89	0.98
	(0.00)	(13.81)	(29.43)	(45.95)	(10.81)
1994	10.61	29.64	27.65	27.65	4.45
	(0.00)	(13.97)	(28.60)	(45.01)	(12.42)
1995	13.16	28.16	18.16	32.54	7.98
	(1.34)	(13.02)	(18.22)	(44.03)	(23.43)
1996	11.03	24.44	24.52	33.69	6.32
	(0.88)	(15.25)	(30.50)	(43.11)	(10.26)
1997	6.00	22.31	22.46	39.29	9.93
	(0.81)	(9.74)	(20.13)	(55.36)	(13.96)
1998	6.72	10.97	21.87	27.76	30.75
	(0.00)	(1.59)	(11.62)	(37.58)	(45.54)
1999	2.96	10.08	23.27	27.22	35.54
	(0.00)	(1.64)	(14.99)	(28.13)	(51.33)
2000	6.60	17.07	27.47	25.47	22.88
	(0.00)	(6.29)	(24.95)	(29.93)	(36.23)
St.Vincent & the Grenadines					
1993	13.16	28.16	18.16	32.54	7.98
	(2.27)	(25.00)	(40.91)	(30.68)	(1.14)
1994	6.83	23.99	30.63	33.03	5.54
	(0.00)	(26.32)	(47.37)	(23.68)	(2.63)
1995	9.80	29.59	20.61	33.47	6.53
	(0.51)	(17.35)	(26.02)	(47.96)	(8.16)
1996	9.40	29.70	26.30	32.52	2.07
	(0.00)	(13.96)	(34.68)	(42.34)	(9.01)
1997	4.01	18.80	26.09	44.34	6.75
	(0.00)	(12.96)	(26.72)	(53.04)	(7.29)
1998	4.37	8.93	24.77	30.05	30.60
	(0.00)	(2.40)	(18.84)	(40.41)	(37.67)
1999	1.84	11.54	24.08	24.41	36.96
	(0.00)	(0.33)	(17.43)	(32.89)	(48.03)
2000	2.24	12.71	29.75	25.86	28.55
	(0.60)	(5.71)	(25.83)	(27.63)	(37.54)

Source: Annual CXC Statistical Bulletins, 1993-2000, CXC Secretariat, Barbados.

NB: a) Figures for the post 1997 period will not add up to 100.00% as the last of the new grading scheme - Grade VI - has not been included here.

c) Figures for private candidates have been included largely to ensure completeness of information coverage. The number of private candidates varies widely. In 2000 - expressed as a proportion of total number of candidates - these remain quite small (3-5%); they could nevertheless be as high as 24% - as in St. Lucia (Mathematics), or 18% - as in Anguilla (English A).

d) Note private candidates are in brackets.

Table 4.10(a) - CXC Performance - English A, by country, year, and grade level

Year	Anguilla	Ant.	BVI	Dom.	Gren.	Mont.	St.KN.	St. L.	SVG	OECS Avg.
1990	21.2	39.1	71.4	38.8	17.6	62.5	53.0	37.0	32.8	41.5
1993	50.0	53.16	77.9	27.07	19.98	47.36	33.24	43.38	27.73	34.8
1994	50.0	53.16	77.19	43.5	29.05	66.66	48.18	42.3	50.0	51.1
1995	45.6	51.4	59.42	41.01	27.86	67.24	49.37	36.66	41.06	46.6
1996	42.2	65.86	74.12	47.03	43.3	69.69	56.69	59.5	65.46	58.2
1997	54.8	50.84	64.22	60.03	35.3	79.24	47.55	54.72	47.6	53.7
1998	88.17	73.27	83.75	79.83	48.17	100.0	75.94	70.57	68.16	68.7
	(50.54)	*(44.62)*	*(45.0)*	*(48.64)*	*(21.37)*	*(71.43)*	*(44.98)*	*(49.67)*	*(38.92)*	*(41.7)*
1999	86.5	57.44	87.5	71.43	44.3	33.34	52.13	51.38	53.38	63.8
	(59.6)	*(31.91)*	*(56.82)*	*(40.45)*	*(22.17)*	*(22.23)*	*(22.88)*	*(25.12)*	*(30.01)*	*(36.1)*
2000	85.7	64.3	80.4	79.23	42.2	42.2	65.9	58.3	64.2	67.5
	(64.29)	*(40.48)*	*(38.14)*	*(48.16)*	*(19.9)*	*(69.54)*	*(42.46)*	*(32.95)*	*(41.26)*	*(40.96)*
Avgs- 1990-1997**	39.0	50.1	66.8	42.9	28.8	66.5	48.0	43.76	44.11	
Avgs- 1995-1997	45.5	56.0	65.9	49.4	35.5	72.1	51.2	46.6	51.4	
Avgs- 1998-2000	86.8	65.1	83.9	76.9	44.9	73.4	65.7	60.1	61.2	

Source: Annual CXC Statistical Bulletins, 1993-2000, CXC Secretariat, Barbados

1) 1990-1997- Grades I & II; 1998-2000 = Grades I-III. See Chap 4 text, and Technical Note - Appendix I.
2) ** Years missing = 1991, 1992
3) Figures in brackets and in italics are Grades I & II only
4) To minimise possible distortions arising from the peculiar circumstances in Montserrat - data for 1998-2000 have been excluded from the calculation of the annual averages for this country.

Table 4.10(b) - CXC Performance - Mathematics, by Country, Year, and Grade level.

Year	Anguilla	Ant.	BVI	Dom.	Gren.	Mont.	St.KN.	St. L.	SVG	OECS Avg.
1990	12.5	36.1	70.8	32.3	31.0	60.0	45.2	40.5	42.3	41.2
1993	24.5	31.9	69.6	31.8	40.4	24.6	37.9	42.1	41.3	38.2
1994	25.0	35.5	78.9	31.6	28.3	49.1	46.6	40.3	30.8	40.7
1995	25.0	34.7	59.4	31.4	34.2	31.9	37.4	41.3	39.4	37.2
1996	9.1	28.7	46.7	37.9	39.1	50.0	41.2	35.5	39.1	36.3
1997	50.0	30.1	47.2	36.2	21.0	38.5	31.5	28.3	22.8	34.0
1998	51.25	16.6	52.8	44.8	17.59	33.3	44.8	39.6	38.1	39.9
	(13.75)	*(16.6)*	*(18.9)*	*(16.0)*	*(5.86)*	*(0.00)*	*(17.7)*	*(17.7)*	*(13.3)*	*(14.98)*
1999	16.2	23.9	32.1	41.54	17.2	25.0	30.4	36.3	37.4	29.4
	(5.99)	*(6.25)*	*(5.7)*	*(16.3)*	*(5.3)*	*(16.7)*	*(10.6)*	*(13.0)*	*(13.4)*	*(9.6)*
2000	40.6	36.1	75.0	51.2	26.5	47.1	42.6	51.1	44.7	52.6
	(14.9)	*(19.1)*	*(55.6)*	*(25.7)*	*(10.6)*	*(17.6)*	*(17.8)*	*(23.7)*	*(15.0)*	*(22.8)*
Avgs- 1990-1997**	24.3	32.8	71.5	33.4	32.3	42.3	40.0	38.0	36.0	
Avgs- 1995-1997	28.0	31.1	51.0	34.8	31.4	40.1	36.7	35.0	33.8	
Avgs- 1998-2000	36.0	30.2	53.3	45.8	20.4	35.1	39.3	42.3	40.1	

Source: Annual CXC Statistical Bulletins, 1993-2000, CXC Secretariat, Barbados

1) 1990-1997- Grades I & II; 1998-2000 = Grades I-III. See Chap 4 text, and Technical Note - Appendix I.
2) ** Years missing = 1991, 1992
3) Figures in brackets and in italics are Grades I & II only
4) To minimise possible distortions arising from the peculiar circumstances in Montserrat – data for 1998-2000 have been excluded from the calculation of the annual averages for this country

Table 5.1 Mortality rates (per 1,000 population) for main causes of death

	Antigua	BVI	Dom.	Gren.	Mont.	St. Kitts	St. Lucia	SVG
Malignant Neoplasm	1.1 (43.8)	0.7 (17.7)	1.2 (18.3)	0.7 (19.6)	1.2 (17.4)	0.1 (10.5)	1.1 (17.5)	0.9 (27.5)
Cerebrovascular Disease	0.4 (15.2)	0.3 (7.6)	0.4 (5.8)	0.3 (8.3)	0.9 (13.0)	0.2 (26.0)	0.7 (10.3)	0.3 (5.2
Pulmonary	0.2 (6.2)	0.6 (13.9)	0.7 (11.7)	1.0 (27.9)	0.8 (11.6)	0.1 (8.6)	0.8 (12.5)	0.4 (11.0)
Ischaemic Heart Disease	0.2 (8.4)	0.5 (12.7)	0.2 (3.1)	…	0.5 (7.2)	0.1 (13.3)	0.2 (3.8)	0.0 (0.8)
Diabetes	0.3 (13.5)	0.1 (1.3)	0.6 (10.0)	0.3 (3.1)	0.8 (11.6)	0.0 (3.9)	0.5 (8.1)	0.4 (12.6)
Acute Respiratory Infection	…	0.2 (5.1)	0.3 (5.0)	0.1 (3.1)	0.6 (8.7)	0.1 (8.3)	0.4 (6.1)	0.0 (1.3)
Accident Non-Vehicular	…	0.1 (2.5)	0.2 (2.5)	0.1 (2.8)	0.3 (4.3)	0.0 (1.7)	0.4 (6.4)	0.1 (3.7)
Perinatal Condition	0.3 (11.8)	0.3 (7.6)	0.1 (1.7)	0.0 (0.6)	…	…	0.3 (4.0)	0.2 (5.5)
Hypertension	…	0.5 (12.7)	1.3 (19.8)	…	0.8 (11.6)	…	…	…
Homicides/ Suicides	…	0.1 (2.5)	…	0.2 (5.2)	0.1 (1.4)	0.0 (1.7)	0.3 (4.5)	0.2 (5.5)

Note: Those values in brackets represent the percentage of total deaths.
Source: CAREC, Ministry of Health, Government Statistical Offices.

Table 5.2 AIDS by country with incidence rates per 100,000 population

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Anguilla	11.1	0	0	0	0	0	11.1	…	…
Antigua	4.7	9.4	21.5	26.2	24.6	10.6	19.7	10.4	7.5
BVI	12.5	6.0	11.6	11.2	5.6	16.7	5.6	16.7	5.3
Dominica	8.5	12.9	8.3	20.8	8.1	6.8	18.9	26.8	16.9
Grenada	5.3	7.4	4.3	22.3	7.4	19.1	18.2	10.8	6.5
Montserrat	0	0	0	9.1	0	0	0	0	20.0
St. Kitts	19.0	2.4	9.5	7.0	16.3	14.0	14.0	9.1	…
St. Lucia	3.0	4.4	5.8	8.6	9.2	7.0	9.7	10.3	6.8
St. Vincent	4.4	11.3	4.3	8.6	10.3	5.1	22.0	26.9	37.8

Source: CAREC

Table 5.3 Gastroenteritis by country with incidence rates per 1,000 population

Country	Incidence	1991	1993	1994	1997	1998
Anguilla	# of cases <5yrs	21	…	…	…	0
	Rate per 1000 <5yrs	21.3	…	…	…	0
	Rate of <5yrs per 1000 pop.*	2.3	…	…	…	0
Antigua	# of cases <5yrs	381	99	271	2091	1037
	Rate of <5yrs per 1000 pop.	6.0	1.5	4.1	30.4	14.8
BVI	# of cases <5yrs	0	1	0	46	51
	Rate of <5yrs per 1000 pop.	0	0.1	0	2.4	2.6
Dominica	# of cases <5yrs	280	118	…	42	70
	Rate per 1000 <5yrs	36.6	…	…	…	…
	Rate of <5yrs per 1000 pop.	3.9	1.6	…	0.6	0.9
Grenada	# of cases <5yrs	231	109	39	368	717
	Rate of <5yrs per 1000 pop.	2.4	1.1	0.4	3.7	7.2
Montserrat	# of cases <5yrs	35	35	…	19	29
	Rate per 1000 <5yrs	112.2	…	…	…	…
	Rate of <5yrs per 1000 pop.	3.2	3.3	…	3.1	8.1
St. Kitts	# of cases <5yrs	438	158	28	357	218
	Rate per 1000 <5yrs	96.2	…	…	…	…
	Rate of <5yrs per 1000 pop.	10.7	3.6	0.7	8.8	5.4
St. Lucia	# of cases <5yrs	254	76	251	0	0
	Rate of <5yrs per 1000 pop.	1.9	0.5	1.8	0	0
St. Vincent	# of cases <5yrs	1120	76	626	881	378
	Rate of <5yrs per 1000 pop.	10.5	1.7	5.7	7.9	3.4

*** 1,000 of the total population of the country.**
Source: CAREC

Table 5.4 Years of potential life lost 1994-95 – OECS countries

Country	<1	1-4	5-14	15-24	25-44	45+	TOTAL
Anguilla	3958	0	9	1117	1497	898	7469
Ant-Barb	2249	198	0	216	870	646	4179
BVI	2769	0	298	488	1309	673	5538
Dominica	2096	677	258	845	1888	1132	6895
Grenada	1811	0	260	799	1892	1382	6143
Montserrat	1634	0	1406	0	4636	2912	10589
St. K-Nev	1937	341	455	373	3081	1883	8070
St. Lucia	2584	907	882	1917	3814	2606	12710
SVG	…	…	…	…	…	…	…

Source: Computed

Table:5.5 Infant mortality rates

	1980	1985	1990	1995	1996	1997	1998	1999	2000
Anguilla	31.3	22.7	12.6	24.0	6.2	6.2	n.a	n.a	n.a
Antigua	31.5	24.4	20.6	17.1	25.4	14.5	n.a	n.a	n.a
BVI	44.1	16.6	34.7	3.5	14.9	5.7	18.0	9.5	n.a
Dominica	12.6	16.4	18.4	16.0	16.9	13.0	15.0	24.0	n.a
Grenada	22.8	18.0	27.8	12.7	14.3	14.3	19.2	n.a	n.a
Montserrat	40.2	17.0	45.9	2.4	n.a	7.8	n.a	n.a	n.a
St. Kitts	53.0	30.2	19.7	25.1	24.0	22.9	27.8	12.7	n.a
St. Lucia	24.3	23.6	19.8	13.2	16.7	17.9	14.7	14.1	16.4
St. Vincent	60.2	20.3	20.8	17.9	16.7	18.2	22.2	n.a	n.a

Source: CDB Development Indicators, 2000

Table 5.6 Per capita energy availability (calories/day)

Countries	1961-63	1974-76	1984-86	1992-94	1995-98
Antigua & Barbuda	2083	2147	2403	2486	2396
Bahamas	2449	2360	2696	2513	2539
Barbados	2591	2872	3012	3065	3124
Belize	2189	2441	2493	2688	2878
Dominica	1812	2032	2674	2865	3017
Grenada	1797	2078	2333	2640	2692
Guyana	2266	2485	2485	2411	2450
Jamaica	2040	2688	2570	2663	2655
St. Kitts & Nevis	1850	2218	2540	2720	2724
St. Lucia	1884	2069	2439	2680	2807
St. Vincent & the Grenadines	1901	2272	2474	2396	2535
Trinidad & Tobago	2365	2670	3016	2500	2648

Source: FAO Food Balance Sheet (Data Various Years

Table 5.7(a) Regression analysis: Impact of health on economic performance
Dependent Variable: Real GDP Growth Method: GLS (Cross Section Weights)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Life Expectancy	**0.403573**	**0.076683**	**5.262838**	**0.0000**
Real Capital Formation	**0.000660**	**0.000211**	**3.122858**	**0.0024**
Inflation	**0.022065**	**0.004011**	**5.500456**	**0.0000**
Population Density	**0.000733**	**0.000416**	**1.759912**	**0.0820**

Source: Computed

Weighted Statistics

R-squared	**0.291986**
Adjusted R-squared	**0.167042**
S.E. of Regression	**0.084720**
F-Statistic	**9.347744**
Prob(F-Statistic)	**0.000030**

Table 5.7(b) Regression analysis: Impact of health on economic performance
Dependent Variable: Growth in Productivity

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Life Expectancy	30.19823	6.629679	4.555007	0.0000
Real Capital Formation	0.016125	0.012020	1.341580	0.1833
Inflation	-0.863461	0.379987	-2.272341	0.0256
Population Density	0.051825	0.033376	1.552731	0.1242

Source: Computed

Weighted Statistics	
R-squared	**0.578718**
Adjusted R-squared	**0.504374**
S.E. of Regression	**6.369843**
F-Statistic	**31.13735**
Prob(F-Statistic)	**0.000000**

Table 5.8 Real per capita expenditure in health care

	United States	Middle Income Countries	Latin America and the Caribbean	B'dos.	Dom.	St. Lucia	Gren.	St. Vin.	Anguilla	St. Kitts & Nevis	Antigua & Barbuda	British Virgin Islands
1990	**1.000**	**0.626**	**0.090**	**0.141**	**0.000**	**0.005**	**0.016**	**0.008**	**0.025**	**0.031**	**0.059**	**0.078**
1991	**1.000**	**0.605**	**0.085**	**0.110**	**0.013**	**0.000**	**0.013**	**0.001**	**0.020**	**0.025**	**0.061**	**0.067**
1992	**1.000**	**0.590**	**0.088**	**0.090**	**0.010**	**0.000**	**0.009**	**0.001**	**0.020**	**0.028**	**0.064**	**0.057**
1993	**1.000**	**0.581**	**0.087**	**0.096**	**0.011**	**0.002**	**0.004**	**0.000**	**0.020**	**0.034**	**0.066**	**0.057**
1994	**1.000**	**0.584**	**0.095**	**0.096**	**0.015**	**0.005**	**0.006**	**0.000**	**0.022**	**0.045**	**0.060**	**0.065**
1995	**1.000**	**0.639**	**0.103**	**0.098**	**0.014**	**0.003**	**0.006**	**0.000**	**0.024**	**0.043**	**0.075**	**0.074**
1996	**1.000**	**0.666**	**0.104**	**0.107**	**0.017**	**0.004**	**0.012**	**0.000**	**0.016**	**0.056**	**0.012**	**0.100**
1997	**1.000**	**0.649**	**0.101**	**0.098**	**0.012**	**0.000**	**0.012**	**0.003**	**0.015**	**0.049**	**0.007**	**0.091**
1998	**1.000**	**0.603**	**0.102**	**0.111**	**0.014**	**0.000**	**0.011**	**0.005**	**0.017**	**0.057**	**0.007**	**0.106**
1999	**1.000**	**0.563**	**0.104**	**0.113**	**0.017**	**0.000**	**0.013**	**0.008**	**0.018**	**0.059**	**0.009**	**0.106**

Source: Computed form data obtained from World Bank World Development Indicators (2000)
N.B. Montserrat omitted due to missing data.
The '1.000' for the USA implies that it has the highest ratio of spending on health care in the sample of countries considered. Thus, the higher the index the larger the spending on health care.

Table 6.1(a) Proportion of households falling below the poverty lines, by gender of head of household and area of residence – Grenada

	Absolute Poverty			Food Only			Food Plus		
	Males	Females	(Gap)[a]	Males	Females	(Gap)[a]	Males	Females	(Gap)[a]
Urban	-	-	-	-	3.6	(-3.6)	9.5	8.4	(+1.1)
Rural	6.4	7.4	(-1.0)	8.1	9.3	(-1.2)	24.8	27.1	(-2.3)
Total	5.7	6.2	(-0.5)	7.3	8.4	(-1.1)	23.1	24.2	(-1.1)

Selected Poverty Indices:
Food Only = Minimum Basket for Family of Four;
Absolute Poverty = 80 % of Food Line; Food Plus = Food plus the reciprocal of food/non-food of the poorest 40 %.
a) = Gap = Difference between male and female percentages.

Table 6.1(b) Proportion of households falling below the poverty lines, by gender of head of household and area of residence – St. Lucia

	Absolute Poverty			Food Only			Food Plus		
	Males	Females	(Gap)[a]	Males	Females	(Gap)[a]	Males	Females	(Gap)[a]
Urban	5.2	2.1	(+3.1)	6.9	2.1	(+4.8)	7.8	11.3	(-3.5)
Rural	4.5	6.2	(-1.7)	6.3	8.6	(-2.3)	17.5	14.8	(+2.7)
Total	4.7	4.6	(+0.3)	6.5	6.2	(+0.3)	14.2	13.5	(+0.7)

Selected Poverty Indices:
Food Only = Minimum Basket for Family of Four;
Absolute Poverty = 80 % of Food Line; Food Plus = Food plus the reciprocal of food/non-food of the poorest 40 %.
a) = Gap = Difference between male and female percentages.

Table 6.1(c) Proportion of households falling below the poverty lines, by gender of head of household and area of residence – St. Vincent

	Absolute Poverty			Food Only			Food Plus		
	Males	Females	(Gap)[a]	Males	Females	(Gap)[a]	Males	Females	(Gap)[a]
Urban	13.3	13.3	(0.0)	16.3	18.9	(-2.6)	22.4	22.2	(+0.2)
Rural	16.4	23.1	(-6.7)	22.2	29.8	(-0.6)	26.9	34.7	(-7.8)
Total	15.2	19.0	(-3.8)	17.6	25.3	(-7.7)	22.3	30.1	(-7.8)

Selected Poverty Indices:
Food Only = Minimum Basket for Family of Four;
Absolute Poverty = 80 % of Food Line; Food Plus = Food plus the reciprocal of food/non-food of the poorest 40 %.
a) = Gap = Difference between male and female percentages.
Source: Kairi Consultants Poverty Assessment Survey data, 1996-2001.

Table 6.2 Dependency ratio and incidences of overcrowding

Country	Dependency Ratio ('000)	Overcrowding*
Anguilla	52.1	4.2
Antigua	45.5	…
British Virgin Islands	…	…
Dominica	56.8	10.9
Grenada	89.1	13.6
Montserrat	…	2.9
St. Kitts	62.8	…
St. Lucia	64.4	…
St. Vincent	54.3	…

Source: Government Statistical Offices
*** Percentage of total households with more than 2 persons per room**

Table 6.3 Percentage distribution of households by method of water supply

		ANT	BVI	DOM	GRE	MON	STK	SLU	SVG
Private	Piped to Dwelling	9.8	52.7	10.0	3.9	2.7	10.0	16.2	6.3
	Catchment Not Piped	5.8	19.6	2.0	7.6	0.1	2.0	2.1	5.0
Public	Piped to Dwelling	40.7	21.5	29.6	46.1	71.2	29.6	31.6	33.3
	Piped to Yard	11.2	3.0	10.6	13.3	17.1	10.6	14.9	14.3
	(Stand pipe)	29.9	0.3	37.6	21.1	6.3	37.3	28.3	29.4
	Well/Tank	0.4	1.7	2.6	0.5	0.2	2.6	0.7	1.0
	Other	2.2	1.2	7.9	…	2.4		…	10.8

Source: Social Development Unit OECS Secretariat

Table 6.4 Percentage distribution of households by type of toilet facility

	ANT	BVI	DOM	GRE	MON	STK	SLU	SVG
WC Link to Sewer	0	17.1	12.9	2.9	0.7	1.3	6.5	3.1
WC Cesspit/ Septic Tank	52.8	72.6	33.2	33.2	69.2	54.4	29.2	30.1
Pit Latrine	41.3	8.7	35.4	28.9	18.5	40.0	49.0	62.3
Other	1.5	0.8	2.3	1.1	0.8	0.9	4.3	0.8
None	4.3	0.8	25.5	3.9	10.8	3.4	11.0	3.7

Source: Social Development Unit OECS Secretariat