Human Resources Development
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Human Resources Development is both an end and a means of economic and social development. This essay concentrates on the latter, dealing with education and training. It steps back from the data to identify broad trends, patterns, and issues that are in need of greater policy and public attention.

There is widespread recognition in the public and private sectors that more intensive and urgent efforts to upgrade education and training, both in quantitative and qualitative terms, are a central factor in increasing international competitiveness and realizing the development potential of countries in the region.

Significant improvements in education and skills attainments are critical to modernizing traditional sectors such as agriculture, and to developing new lines of production in agriculture, manufacturing, and in the increasingly important services sector. These improvements should be associated with an enlargement of the knowledge base by accelerated and broadly based activities in the field of research and development (R&D).

Access

At the present time, the educational and knowledge systems fall very short of these objectives. Starting with the question of access, recent data show that the probabilities of educational attainment in the English-speaking Caribbean start with 100% at primary level, 55% at secondary level, 7% at tertiary level other than university, and 3% at the University of the West Indies (UWI).

These numbers indicate that the quantitative shortfall is most striking at the tertiary level, where gross enrollment ratios are less than one-third of the average for middle-income developing countries taken as a whole. The tertiary shortfall is especially marked in science and technology where, to quote one example, Jamaica with a roughly similar population to Singapore, has about one-tenth of the latter's gross enrollments in those subjects.

The Primary Level

At the primary level, although the gross enrollment ratios compare favorably with other parts of the world, complaints are legion about quality. In virtually every part of the Caribbean, very marked imbalances exist in the availability of places in different schools, especially between those in urban and rural areas. Thus, one finds a situation where heavy overcrowding is coexisting with significant under-utilization of places. Recent work done on both Jamaica and Trinidad and Tobago identify the problem of maldistribution of places as requiring immediate attention.

The upkeep of schools is also deficient, ranging from dire shortages of textbooks and equipment, to the need for repairing damaged furniture and other facilities, and to correct inefficiencies in the day to day maintenance of buildings and grounds. In 1994 it was reported that in the countries of the OECS, out of a total of 466 primary schools, 102 were without telephones, 219 without a single typewriter, 202 without libraries, and almost 400 without science rooms.

Guyana ranks lowest among CARICOM countries in indicators of educational capacity. A survey of infrastructure in 1991 showed that only 10% of the schools were in a satisfactory condition. Over half the students attend schools where no textbooks are available, and in several rural and interior areas, more than 70% of the teachers are untrained.

Perhaps the most serious weaknesses lie in curricula and teaching methods. Efforts have
been underway for the better part of three decades to expose students to broad curricula that would provide a solid foundation for developing their cognitive and numerical capabilities. However, too often these efforts have not been sustained because of resource constraints. Moreover, teaching methods are out-of-date, emphasizing learning by rote rather than problem-solving. Educators explain that the use of problem-solving methods require small classes and adequate materials and equipment, which are the exception rather than the rule.

Co-curricula activities are badly in need of greater attention. A special experiment undertaken in a small sample of Jamaican schools has confirmed the importance of these activities in building leadership, discipline and team work. They have proven to be excellent instruments for conflict resolution in schools which hitherto had disturbing levels of violence among students.

One factor affecting school performance is the gender imbalance among teachers, reflected in an extraordinarily high proportion of female to male teachers. It is generally thought that this imbalance contributes in one way or another to low participation, poor academic performance, and relatively high drop-out rates among boys in the primary-secondary-tertiary continuum.

The Secondary System

A critical stage is reached at age eleven when students are streamed - the better performers going into the classical secondary schools, essentially of an academic character, while the remainder enter another type of post primary school, called in some cases, All-Age, in others, Senior, Comprehensive, and Junior Secondary. These schools tend to be the worst-off in the system in terms of resources, quantity and quality of staff, as well as programs.

There is a general desire that the programs in these schools should have a strong practical content, exposing students to "hands on" activities that would equip and orient them for the world of work. However, because of resource shortages, the usual situation is for the students to be prepared for the same examinations taken by students in the academic stream. Predictably, high rates of failure result especially in English, Mathematics, and Science subjects. This is illustrated by the pattern of results in Caribbean Examinations Council (CXC) examinations. In Trinidad and Tobago, one of the best performing countries in the region, much less than 10% of students sitting from Comprehensive/Junior Secondary Schools pass five or more subjects. Moreover, employers complain of hiring students with four to five CXC passes who have difficulties with reading, writing, and simple computations.

The more academic schools also face difficulties in preparing students in English, Mathematics and Science. Although pass rates are higher, it is not unusual to find them below one-half of the students sitting the examinations. However, this overall profile conceals significant variations between individual countries and individual schools. For instance, Trinidad and Tobago achieves exceptionally good results in the 'A' Level examinations, notably in the Science areas. A smaller island where comparatively high rates of entry into secondary schools, and good examination performances are being recorded, is St. Kitts-Nevis. It is believed that the relatively favorable performance of secondary schools in those latter islands can be attributed to the high quality of teaching, itself a function of the good rates of pay in the school system.

Countries have therefore successful examples on which they can draw in endeavoring to correct weaknesses. Some of these inter-country and inter-school sharing of experiences is happening, but not yet on a sufficiently large scale.

Governments, the private sector, non-governmental organizations, and external donors, have been involved in initiatives to increase the employability of graduates from the secondary schools. These have taken the form of supporting teaching in practical subjects, of helping to develop computer literacy among staff and students, and of promoting work/study projects. These efforts are all commendable, and though growing, are still on a relatively modest scale because of limited human and financial resources.

Based on very rough estimates made by some sources, it is possible that the initial capital requirements for making the entire school population in the English-speaking Caribbean computer literate could exceed US$1 billion. Given that the costs of computer hardware and software are trending downwards, these requirements could well be within reach, spread over say a five to seven year period; but a truly national effort will be required to attain this goal.
Apart from equipment and software, a major thrust will be needed in the training and re-training of teachers in educational technology. Up to now the teachers’ colleges and the universities have been engaged with very minor efforts, partly because of their inability to recruit highly qualified staff due to their uncompetitive salaries. This is a matter to which the local private sector and external donors should give more attention: by contributing towards the cost of faculty development, releasing their own staff on a part-time or secondment basis to assist with teaching; providing overseas technical assistance and/or topping up local salaries.

This is a very suitable area for Caribbean cooperation in mobilizing the necessary human and financial resources, in sharing expertise both in the establishment and management of systems, and in training staff. The UWI has already indicated its readiness to be the hub of a network of tertiary institutions, tackling issues such as capacity building in educational technology.

Greater and more sustained efforts are also needed in the development of apprenticeship schemes. This is a prime area for private sector involvement, and some encouraging developments are taking place. The Youth Training and Employment Partnership Programme (YYTEP) in Trinidad and Tobago, supported by the World Bank, is one example. However, apprenticeship opportunities need to be more fully integrated into the regular operation of companies and firms. So far, they are concentrated among a small number of large companies.

There are complaints about deficiencies in the organization of apprenticeships arising from inadequate supervision and evaluation of apprentices. These point to weaknesses that need to be corrected in the personnel and human resources development capacities of firms. UWI’s Institutes of Business have begun to provide HRD training for the private sector.

**The Reform of the Primary/Secondary Systems**

At both the national and sub-regional levels, governments are working on reform of the primary and secondary systems. It seems likely that in several countries the 11 plus examinations will be eliminated, to be replaced by streaming at a later stage to make room for the late developers, and to abolish the segmentation of the secondary system between the so-called academic and non-academic schools. Undoubtedly this will be a step in the right direction, but that alone will not change the fundamental situation. Without more resources in the form of better equipped and maintained schools, and more highly trained teachers, the basic deficiencies are likely to remain, irrespective of the structures adopted.

The World Bank and the Caribbean Development Bank are supporting projects in several countries to reform the basic education system. For instance, several such projects are being developed in the member countries of the OECS. St. Lucia is the first country to get off the ground with a project targeted on increasing access at the secondary level. The project provides, inter alia, for additional space, improved teacher training, and curriculum development. Major projects are also underway in two of the larger CARICOM countries.

One issue in educational reform is sustainability. This is not the first time that international assistance is being provided for improving the systems in the region. The outcome of past projects has been mixed with some improvements carrying over into the longer term, while others have petered out. Financial constraints, poor management, loss of teachers, continue to be among the factors affecting sustainability.

An area of particular difficulty has been technical and vocational education. Over the past twenty years, a number of projects have been undertaken to increase access and improve quality. But the limited impact of these endeavors can be judged from the fact that at present the annual output of technologists, technicians, and skilled manual workers, represent only a minuscule proportion of the workforce. Available data are somewhat out of date and fragmentary, yet they suggest that the annual output of such trained personnel are everywhere very much less than 1% of the workforce. These data are reinforced by the multiplicity of reports of continuing shortages of skilled workers in sectors such as manufacturing, construction, and services.

**Private Schools**

In nearly every Caribbean country, private education has been playing an important role,
especially in supplementing the instruction provided in the government schools. This is most common in the form of private classes in preparation for the entrance and school leaving examinations at the secondary level. There is also considerable activity in commercial and related training.

No systematic evaluations are available about the quality of this education. A good part of it is being provided by the teachers employed in the government schools, and by retired teachers. It can therefore be assumed that it is not significantly inferior to the quality of instruction in grant assisted schools.

A good case can be made for encouraging the expansion and upgrading of the private system provided it does not lead to resources diversion from the public system, and a reduction of access for low-income students. As suggested later, private schools can play a useful role in the export of educational services.

Ideally, if the management of the school system becomes increasingly community based, and cost sharing emerges as a regular feature of the system, the dichotomy between public and private schools could eventually disappear. At present, private tuition represents a distortion of the system, arising from the shortage of places, large classes, and curriculum deficiencies.

The integration of the two systems could allow for productivity related compensation, and rewards for enterprise, that can be beneficial to both teachers and students.

At present, no government in the region has a well articulated policy towards private schools. Their growth has been haphazard, and little monitoring of their performance is taking place. It is advisable that a more systematic approach be adopted with regard to them.

**The Tertiary System**

It was mentioned earlier that the principal problem at the tertiary level is one of access. Both governments and institutions agree that deliberate efforts must be made to increase access over the rest of the decade into the next century. Thus, the UW's Development Plan for the 1990s targeted a 50% increase in enrollments over the period from 12,000 students in 1990 to 18,000 in the year 2000. However, this year (1994/95), enrollments have already reached approximately 17,500, and some faculties have exceeded their target increases.

The demand for tertiary education is essentially market-driven, and follows closely the availability of jobs and comparative levels of remuneration. There is significant excess demand for places in areas such as Engineering and Management Studies, while more traditional faculties like Medicine and Law, continue to attract high levels of applications. Spare capacity exist in the Humanities, and even in the Sciences - although the latter may disappear with the human and physical upgrading of the faculty that is now taking place. Particularly worrying are the small numbers in Education and Agriculture, reflecting students’ perceptions of the poor career prospects in these fields.

**Costs and Returns in Tertiary Education**

Although it is generally acknowledged that economic development requires a significant expansion in the number of tertiary graduates, there is concern about the resources implications because of the high cost of UWI vis-a-vis other parts of the system, and also in relation to some universities in other developing areas.

While there are understandably many areas where UWI, like comparable institutions in the region as well as outside, must be very vigilant in pursuing cost economies, there are some other considerations that must be taken into account. One is that given the weaknesses in the primary and secondary system, they may be too cheap rather than UWI being too expensive. It is not known whether similar analogies can be drawn about some of the institutions with which UWI tends to be compared.

Universities today have to be viewed in international terms. In an era when international competitiveness is the guiding force for economic development, the quality of university graduates has to be comparable on an international scale. It is often observed that one of UWI’s greatest strengths is the international recognition that is accorded to its degrees by overseas universities and professional bodies. Inevitably this means that unit costs, while somewhat below those of the very top universities, will tend to be higher than the other parts of the local educational system which do not have to satisfy tests of international competitiveness.

In the end, what matters are comparative returns from different types of education which,
essentially, are the expected rates of "profitability" deriving from educational investment at different levels. International data, including information on Latin America and the Caribbean, suggest strongly that rates of return at the primary and secondary levels are much higher than those at the tertiary level.

Such data, while useful, must be interpreted with caution. They are usually not sufficiently disaggregated as between types of education at the different levels, and do not take account of quality differences and externalities. For instance, some available information shows that rates of return on tertiary graduates in Science and Technology (S & T) exceed those of graduates in other fields, as well as those of some secondary graduates, principally because S&T graduates tend to be among the highest paid.

Again, the data do not usually distinguish between different levels of attainment by graduates in a particular field. Tracer studies indicate significant earning differentials between graduates according to the classes of their degrees.

In relation to externalities, academic staff employed in the University are expected to engage in research, and research and development, which could yield significant income streams over time for persons and entities other than themselves.

Research and R&D

As the only institution of higher education in the area, UWI is necessarily looked upon for providing leadership in these fields. Almost since its establishment, the UWI has sought to investigate local problems but with an eye on their wider significance. This is illustrated by the success achieved in developing techniques to reverse mental retardation in malnourished children; in the record built up by an MRC Unit on the Mona Campus in the clinical investigation of Sickle Cell anemia; in the work now in progress on the relationship between HTLV-1 virus and leukemia. Other faculties are also scoring very well in areas such as natural products, plant biotechnology, Linguistics, Early Childhood and Multicultural Education, Heritage Studies, Poverty and Social Policy - to name just a few. If UWI is to discharge its responsibilities to be a focal point for enhanced research and R&D efforts, it has to have the capability to retain and attract scholars of international standing, and to participate in regional and international research networks.

Distance Education

Notwithstanding the quality and related cost pressures originating from the objective of attaining international competitiveness, UWI and the tertiary system as a whole has to exploit to the fullest extent possible, opportunities for lower cost expansion such as Distance Education. The University has been operating for over 10 years a distance teaching project, serving principally, the territories that do not have campuses. A development program, financed by the Caribbean Development Bank, is now underway to increase the number of site stations, expand the levels and types of programs delivered, and improve the technology.

Distance Education is particularly well-suited to the dispersed community that the University serves. It will also facilitate cooperation with other universities, especially those in the wider Caribbean, thereby diversifying and strengthening outreach, teaching, and research.

A well articulated system of Distance Education can serve not only the tertiary system, but also the primary and secondary schools in order to make up for deficiencies in both the quality and range of programs. This has reinforced the point made earlier concerning the high priority that should be attached to training and re-training teachers and teacher-trainers in educational technology.

Networking

One of the major trends in higher education today is the creation of networks and consortia of universities and related institutions within countries, regions, and across countries on a global scale. These are responses to the drive for global competitiveness, and the establishment of new divisions of labor between institutions. It is very likely that this trend will be accentuated in the period ahead, as both teaching and research become more globalized.

UWI is already associated with part of this trend. The Mona Campus of the University is currently delivering an Executive Masters program in Public Sector Management, targeted
towards students from small developing countries, with a teaching team consisting of local faculty, and others drawn from four institutions in Australia, Britain, and the United States. Consideration is currently being given to an invitation to join an international network of medical schools in the United Kingdom, France, Eastern Europe, Japan, Hong Kong, and South Africa.

The network will provide for student and faculty exchanges, and joint research. Within the Caribbean Basin itself, the European Union is funding a project to deliver eight bilingual Masters Degrees, in a joint arrangement with three universities in the Dominican Republic, with a Haitian university coming on stream, as soon as circumstances allow.

Cooperation arrangements are in place, or being developed, with some twenty universities in the United States, with five leading Canadian universities, and with a score of universities in Britain. Most of these arrangements are cross-disciplinary, and provide for student and faculty collaboration.

Additionally, some other universities have also begun to send students to UWI on a study-abroad basis.

**Exports of Educational Services**

One of the spin-offs from networking is the scope that it provides for exporting educational services, not only to partner institutions, but also to third institutions and countries. Indeed, joint exporting to third countries is already being discussed as a feature of some existing cooperation arrangements.

An aspect of educational exports is summer programs, to which international students can be attracted. Educational tourism is growing worldwide. The Caribbean is well-placed to add education to its "sun, sand, and sea," in diversifying the tourism product.

One form of educational exports is educational franchising, whereby universities can license other institutions to deliver programs with its certification. Given the tendency towards high re-location costs, students in some countries are already beginning to opt for local programs, delivered under the imprint of high quality institutions. UWI is already receiving inquiries about its willingness to export programs under such an arrangement.

A further component of educational exports is consultancy. The growth of international consultancy has opened up opportunities for universities to become competitive providers of consultancy services. Faculties at UWI are being increasingly encouraged to undertake consultancy work for institutions and companies at both national, regional, and international levels. The University itself is now actively considering the establishment of an institution-wide consultancy facility. Already approval has been given for the establishment of Institutes in the Faculties of Medicine and Engineering which will, *inter alia*, provide consultancy services. Recently, the UWI organized joint ventures with two Canadian universities to undertake consultancies relating to health, and physical infrastructure.

There is also potential for educational exports at the secondary level. During the 1950s and 1960s, sizable numbers of Latin American students, particularly from Colombia and Venezuela, attended schools in Jamaica, Barbados, and Trinidad and Tobago, in order to get a secondary education in English. Some of this is still continuing on a very small scale. With the shift towards free secondary education, places are no longer easy to get. Governments need to re-think their policies towards private secondary schools, since they may be able to build up such a flow again. An additional source of students might come from the families of Caribbean nationals abroad.

**The Financing of Education**

Caribbean countries are grappling with the problem, now almost universal, of allocating their scarce public resources among the competing demands of the different parts of the educational system. Although individual countries have not all made comprehensive policy statements on the matter, the present trend seems to be to give greater priority to primary and secondary education over tertiary in allocating public funds.

A simulation done in 1993 of the Jamaican situation is revealing. Assuming that the economy grows at 3% per annum, and that the share of education in the national budget rises to 15%, the target to double real per capita expenditure on primary education is attained, the share of secondary education in the total education budget remains constant, the outlays
on tertiary education would have to be reduced in both relative and absolute terms.

According to priority to primary education is justified on grounds of equity, whereby public resources are directed towards the poorest children in the community. As one moves up the educational ladder, it is assumed that the poor students are a diminishing proportion of the total.

However, this does not mean that significant numbers of poor students do not make it into the tertiary system. For example, a study done a few years ago show that 40% of the students at the Mona (Jamaica) Campus of UWI, came from families that were below the poverty line. A fruitful line of research would be to investigate the survival strategies which poor students employ to maintain themselves in the tertiary system.

Given the shortage of resources set against expanding educational needs, non-governmental financing of education has become a very pertinent issue. It is accepted in some countries that cost-sharing, through the charging of tuition fees, should take place at the tertiary level. Thus UWI introduced in 1993 new tuition fees computed at 15% of economic cost. All of the contributing countries to the University, except the Bahamas and Barbados, require their students at the University to pay the new scale of fees. The students from these two countries continue to receive free university education.

Jamaica has gone further than the other countries in introducing fees throughout the tertiary system, and in the secondary schools. With respect to the schools, the fees are expected to cover non-salary operating costs, leaving the government to pay salaries. More recently, the University of Guyana has also introduced fees.

The new scale of fees was established in the expectation that governments would arrange for students to have greater access to student loans. So far, Jamaica and Trinidad and Tobago have made arrangements with their local commercial banks to provide such loans, but it is uncertain for how long these arrangements will remain in force. Students in the OECS are experiencing special difficulties because of the very limited loan facilities existing in their countries. Further efforts have therefore to be made to ensure sustainable arrangements in the countries where loan facilities have been introduced, and to enlarge these facilities where they exist on a very limited basis, pre-dating the introduction of the new fees.

In addressing these issues, a number of connected matters will require examination. These include the repayment terms of the loan, the special arrangements that would be made for students coming from poor families who cannot provide guarantors, and whether special repayment terms can be offered to students who opt for employment after graduation in jobs with high social returns such as teaching and the public service. There is considerable best practice in other countries, on which the Caribbean can usefully draw, in enlarging and improving student loan facilities.

**Income Generation**

Beyond tuition fees, the education institutions - especially the UWI - should become more active in income generation. Earlier reference was made to possibilities such as attracting international students, as well as contract research and consultancy. Additionally, systematic attention should be given to fundraising from the alumni, the private sector, foundations, individual benefactors, and the public at large. UWI is now becoming active in this area, and hopes to expand its activities in the very near future. Other institutions are also making efforts to mobilize resources from alumni, and by the organization of special events.

In a nutshell, the UWI and other educational institutions have to become more entrepreneurial in character and adapt their institutional structures, their management methods, and their policies, to contend successfully with the new environment. This is acknowledged to be no easy matter, since at stake is the transformation of well entrenched cultures. Universities worldwide can no longer be content with building reputations as high quality centers of reflection. They need to take aggressive steps to attract students, satisfy their customers with marketable programs and courses, and win research and consultancy contracts. By these and other means, they can maximize their earnings, enabling them to recruit high-powered staff and to procure up-to-date equipment and plant. Institutions who fail to measure up to these standards are likely to be left behind. There are expectations that UWI will blaze a trail that can serve as a model for the rest of the
tertiary system, and the educational sector at large.

Management Reforms

Apart from lack of entrepreneurial capacity, educational systems in the region suffer from several management shortcomings. The most important of these is a high degree of centralization. Ministries of Education, often at the highest level, are involved in taking decisions about comparatively minor matters. Over the years, the system has become heavily bureaucratized with little discretionary authority, and hence accountability, at the level of school principals.

Most of the problems identified in schools: poor maintenance of plant; sub-optimal utilization of places; inefficiencies in staff recruitment, materials and equipment procurement; weak linkages with the community; can be traceable to centralization.

Many governments appear to be convinced about the case for decentralization, and some of them have taken steps to delegate authority over specific matters to regional/community bodies. At the same time, interest is growing among the private sector, religious and civic groups such as service clubs, in providing support largely to individual schools. This provides a good basis for confidence-building among the public and private sectors.

School boards, PTAs and Alumni groups are beginning to play a role in day-to-day management, but they are still essentially secondary actors. As the interplay between governments and communities increase, it should become feasible to move towards a community-based system of management, thereby relieving the government of the necessity to retain those responsibilities.

Ministries of Education can progressively concentrate on policy formulation, planning, standard-setting, and monitoring and evaluation. This will allow them to develop a strong research and analytical capacity so that they can keep fully abreast of educational developments in the outside world, relating and adapting them to local use. They will also be better equipped to operate early warning systems, spotting emerging problems, and taking timely action to deal with them.

The complex problems which exist in the school system require a high degree of creativity and innovation if they are to be successfully tackled. Other norms-setting institutions such as the family, and the church, seem to be losing ground. The school should try to make up the deficit through the active involvement of all parts of the community in diagnosing behavioral and learning problems, and in building motivation, team work, and discipline.

In several past periods, community institutions - mainly the church - were very instrumental in the development of the educational system, partly because of the moral authority which they were able to exert. In the difficult economic, social, and human situation that now prevails in all Caribbean countries, it is to the benefit of all that all interests contribute to the development of the educational system.

The Role of the Public Sector

Implicit in the above discussion is a significantly changing role for governments in the educational sector. They can be envisaged as increasingly divesting their responsibility for the management of the school system by encouraging the development of representative community bodies to take over the running of individual schools, or of schools in particular areas. One suggestion made is that governments should establish national education foundations which would assume overall responsibilities for arranging and overseeing the management of schools through building up a network of community organizations.

As far as financing is concerned, one model could be for governments to provide full financing for primary education, the salary bill for secondary education, and a significant proportion (diminishing over time) of the economic cost per student for tertiary education.

Governments should also work towards the rationalization and progressive integration of public and private education to ensure equivalence in costs and standards while leaving space for entrepreneurial initiative.

The role of the government will not be diminished, but will be different. That role would concentrate on planning and policy development, the setting of standards, ensuring adequate monitoring and reporting, keeping a watchful eye over the adequacy of resources available to the system as a whole, and ensuring that the public resources provided are used consistent with the overall strategy for educational development.
In general, the educational system should be the mirror image of what the society itself wants to achieve - a level playing-field, high productivity, efficiency and cost effectiveness in resource use, enterprise and innovation with commensurate private and social benefits.

**Regional Cooperation**

Education has for a long time been regarded as an area well suited for regional cooperation. The University of the West Indies, and the Caribbean Examinations Council, are often quoted as two successful examples in this field.

The principal justification for regional cooperation in education is the increasing need for achieving critical mass in expertise, information, and management, as the acquisition, generation, and utilization of knowledge throw up an increasing range of complex intellectual and technical activities. The Caribbean countries stand a lesser chance of building adequate institutional capacity on their own than if they cooperated together.

The question is sometimes posed - whether it would not be more efficient for very small countries to concentrate on providing primary and secondary education, and import their higher education needs by sending their students abroad, or by relying upon external providers to deliver education locally.

It is self-evident that the Caribbean should not aim at self-sufficiency in higher education because instruction and research services are needed in a wide variety of fields where capital and recurrent outlays for equipment and specialized staff are well beyond the slender resources of the countries of the region.

However, it is unduly pessimistic to conclude that the region should rely principally upon overseas providers of higher education. Among other things, this increases the likelihood of the permanent emigration of students to the sources from which they have received their education; but more fundamentally, without the development of an indigenous knowledge base, the possibilities for meaningful participation in the global economy would be extremely limited.

Without a local flow of well trained graduates, and a capacity for quality research, and research and development, the investment and export prospects of the region would be very poor.

Maintaining a strong regional University is not inconsistent with - indeed favors positively - the decentralization of as much education and training as possible to the widely dispersed localities in the region. Students will be able to minimize the amount of time that they need to spend on campuses. As previously observed, the use of the distance mode could reduce costs significantly.

Experience has shown that a strong regional University can help to develop leadership in the whole arena of education, ranging all the way from teacher training, curriculum development, teaching materials, and the operation of appropriate school examination systems. This does not imply rigid conformity among the different school systems. Rather, there are opportunities for experimentation and diversity with the benefits that would come from sharing experiences among different schools and countries.

The regional University has also performed well in producing government and private sector leaders. This is illustrated by the fact that seven of the currently serving Heads of Governments and numerous Ministers of Governments are UWI graduates. UWI alumni are also to be found among the top management of companies, and are dominant in the professional groups, in the media, and in the leadership of some of the Trade Unions. Truly it can be said that UWI has been doing its job of developing a cadre of local leaders, educated within a local setting, and fully conversant with the circumstances and potential of the area to which they belong.