

1. THE CONTRIBUTION OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TO DEVELOPMENT
 - 1.1 In the Island Developing and Other Specially Disadvantaged States of the Commonwealth there are many pressing development needs, nearly all of which have implications for technical and vocational education and training (TVET).
 - 1.2 As the extracts from the Country Papers reproduced in this report show, there exists already a variety of training activity which plays an important part in national economic and social development by providing skilled manpower at craft and technician levels. This sample shows a wide range of programmes undertaken by ministries, educational institutions and private bodies.
 - 1.3 However, it is evident that in the majority of small states scope exists for widening and enhancing the traditional contribution of TVET institutions by utilising the corpus of skills which they embody. At the same time the range of training resources for education and training outside of these institutions should be used in a more co-ordinated fashion.
 - 1.4 Recognition of this fact does not require a debate on what precisely constitutes TVET. For those directly involved with practical programmes this is likely to be a sterile exercise. The debate is more meaningful when it concentrates upon isolating education and training activities which make a clear and genuine response to economic and social development. The meeting recognised that it is unlikely that a universally accepted definition can be found. It is much more productive if TVET is interpreted in the widest possible sense, including the development and enhancement of skills of all types and at all levels for clearly identifiable developmental purposes.
 - 1.5 For many in the Commonwealth Caribbean very limited opportunities exist to benefit from the fruits of development especially in the commercial, modern sector of the economy. Amongst young people, where aspirations for a better life based upon material advancement are perhaps strongest, there is the bleak prospect of prolonged unemployment or underemployment. For girls and women the chances of regular gainful employment are invariably even more depressing than for men.
 - 1.6 And yet skills training in strategically significant developmental areas would enhance the ability of the small island countries of the Caribbean to utilise and better manage their fragile resource base, foster the development of the neglected rural economy, promote and further the diversification of island economies including the establishment of small manufacturing and service industries, and lessen dependence on highly skilled foreign expertise. Not that overseas expertise is unwelcome in itself, but it is a symbol of dependence and a paradox when unemployment is unacceptably high at other levels within the economy.
 - 1.7 The developmental search is for increased self-reliance based on maximising indigenous resources. And yet, self-reliance is an elusive

concept in small states. Each nation seeks a political, economic and resource balance which is politically and socially acceptable. This search must recognise that there is scope for the improved and increased utilisation of all available resources: the soil, the sea, the mineral wealth, the landscape and the talents of the people even where this resource base is restricted and has been badly utilised and exploited.

- 1.8 An examination of the country extracts at the end of this chapter (p 14), which in turn reflect the aims and objectives of national development plans, shows that increased self-reliance based on the maximum use of indigenous resources is a developmental priority in many Commonwealth Caribbean countries. The broad strategic fronts along which development is sought can be categorised under the main heads of agricultural, industrial and service activity.

Agricultural development

- 1.9 The development of the rural areas of the Caribbean, and of island countries in the South Pacific and the Indian Ocean is a major policy priority. Invariably, agriculture, including fishing and forestry is the most important source of employment be it for subsistence or commercial production and yet in most countries there are significant problems in meeting domestic food requirements, resulting in high cost food imports. This stems in part from a history of monocultural export-oriented production. The diversification of agricultural activity is now required in order to provide more home produced foodstuffs at prices well below those which are imported. (see, for example, information on The Bahamas p 15, British Virgin Islands p 17, Dominica p 18, and St Christopher-Nevis p 20).
- 1.10 The diversification of the agricultural economy also relates to the need to manage with great care the often fragile ecological balance which exists on mountain slopes or atolls to take two significant examples.
- 1.11 For young people the prospect of working on the land or at sea is unattractive. Monetary returns are low. Expectations are oriented towards the town, invariably fostered by the educational system and the inherited urban development premises upon which it is based.
- 1.12 Some Island Developing and Other Specially Disadvantaged States report that the application of new forms of agricultural technology can open up new and more appealing opportunities in rural areas. Clearly such a process has implications for TVET. However, the experience of many countries is that the transfer and introduction of technology must be exercised with great caution especially if the innovation emanates from a different cultural context. Potential client groups must always be aware of the training, utility and the maintenance costs which accompany new forms of technology. These costs have social as well as economic implications, which must be carefully matched against the recipients' perception of the benefits to be derived from the adoption of new techniques. Agriculturalists often resist change and it may be therefore unrealistic to expect meaningful change to be effected rapidly. The ultimate purpose and benefits to be derived from technological change must be clear in the minds of the change agent and the clientele. In this regard TVET has a role to play not only in imparting the knowledge for working with new technologies but also in preparing a wider social awareness of the requirements and implications of technological change.

- 1.13 The school is one of the educational institutions which in its contribution to agricultural development must concern itself with the promotion of attitudes conducive to an acceptance of the developmental value, personal and national, to be derived from a rural lifestyle. The history of agricultural education in many Commonwealth countries suggests that this is far from easy. The Caribbean Examinations Council (CXC) has formulated a new course for young agricultural practitioners, but the introduction of this course faces familiar problems: the lack of land for schools to use, a shortage of agricultural teachers and a school curriculum which is already over-crowded and which is resistant to change.
- 1.14 The skills required of agricultural development include marketing - the growing of crops or the harvesting of fish is not enough. The internal markets of most Caribbean countries are small and marketing infrastructures are often inadequate. For local markets to be exploited effectively and for opportunities to be sought beyond the confines of the island or the country in question requires skills which should be acquired as an integral and vital element of technical and vocational education and training.
- 1.15 A special difficulty in fostering and confirming the importance of agricultural development in a number of the island countries of the Commonwealth Caribbean and the South Pacific is their proneness to natural disaster, especially hurricanes. Dominica has experienced two devastating hurricanes in recent years putting back the development of the economy by many years. A programme of economic rehabilitation and reconstruction in that country (see p 18) places great importance on the diversification of agriculture. (Tonga is a South Pacific country to be similarly afflicted in recent years.)

Industrial development

- 1.16 Industrial development, notably in the promotion of light manufacturing, food processing and craftwork is a second major development concern. (See, for example, these concerns regarding Antigua and Barbuda p 14, The Bahamas p 15, Dominica p 18, Jamaica p 19, and St Christopher-Nevis p 20.)
- 1.17 As with agriculture there is a need for diversification as well as expansion. The industrial base is limited, many manufactured goods are imported and heavy industrial products will continue to be imported. Few of the Island Developing and Other Specially Disadvantaged States have the resource base, the capital or the market to invest in such activity. However, industrial activity based upon food processing, selected import substitution and traditional craft skills and trades forms the basis for most industrial development plans except where major mineral resources such as oil or bauxite provide larger scale industrial opportunities.
- 1.18 In many countries great stress is placed on industrialisation providing a major solution to the growing problem of unemployment. For example, Antigua and Barbuda in its efforts to create 3,350 new jobs in the 1981-1985 Socio-Economic Development Plan period envisages 37 per cent of these new jobs falling in the industrial sector, the largest single group. Thus as the Antigua and Barbuda Country Paper points out (p 14) this will necessitate an increase in the opportunities and need for TVET.

This, says the paper, will require not only the expansion and upgrading of traditional programmes and institutions, but also the adoption of creative practices in both formal and non-formal settings in which work and training are closely aligned.

- 1.19 The acquisition of new skills or the updating of old skills appropriate to new industrial needs varies in the current training provision in the Caribbean. Most countries can point to some preparatory training for this purpose in schools and more especially in technical colleges, specialist vocational institutions or 'on-the-job' apprenticeships. Few of these training programmes, public or private, are based on an adequate availability of local trained teaching personnel. However, this handicap can be partly overcome in some countries by utilising skilled craftsmen and tradesmen from the community preferably after they have received some pedagogical training.
- 1.20 Where trained technical teachers are available they often face a psychological disadvantage in relation to their academic colleagues. The second class blue collar status dies hard - an attitude which cannot help but spill over to the students seeking technical and vocational advancement.

Service sector

- 1.21 This is the third main front along which national development programmes are moving. It is a sector which includes the money making activities associated with banking and tourism, the service skills associated with the maintenance, repair and installation of equipment and machinery and the welfare services such as health and education. (See, for example, Anguilla p 14, British Virgin Islands p 17, Cayman Islands p 17, St Christopher-Nevis p 20 and Turks and Caicos p 24).
- 1.22 In this sector there are considerable variations in development strategy, especially in areas such as tourism, which in turn reflect differences in political opinion on the economic and social advantages and disadvantages of promoting or enhancing outside financial and cultural influence. In countries such as Bermuda and the Cayman Islands the development of tourism is central to development strategy and a special training provision in the form of vocational schools has been established. In some other countries the role of tourism is viewed more cautiously for the cultural and economic dependence to which it can give rise.

Conclusion

- 1.23 The development of the economy along these three broad and strategic fronts is part of a necessary and healthy process of diversification for economies which have long been lop-sided in the benefits and the opportunities which they have offered the people of the Caribbean communities. But diversification is demanding. It necessitates markets, the acquisition of new skills and knowledge and a readiness to accept a new outlook on economic life. It is there that TVET has a crucial role to play, in fostering skills across the economic spectrum in such a way that limited indigenous resources are used to the maximum extent consistent with the efficient and effective management of the economy.
- 1.24 The meeting recognised that the significance of the existing and potential contribution of TVET to development should result in governments developing a consistent and long-term overall policy for TVET.

COUNTRY PAPER EXTRACTS ON THE CONTRIBUTION OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING TO DEVELOPMENT.

Commonwealth Caribbean

ANGUILLA

Tourism, agriculture and fisheries are Anguilla's priority areas for national development for the 1980s and the quantity and quality of technical and vocational education and training which our limited financial and other resources allow must relate to these three broad priority areas.

In an effort to develop these areas, the Government of Anguilla is in the process of developing a Technical and Vocational Centre to offer the following subjects: home economics, hotel trades, basic auto-mechanics, basic welding, plumbing, carpentry, basic electricity and electrical installation and commercial studies with emphasis on office-practice and typing at R.S.A. Levels I and II.

ANTIGUA AND BARBUDA

The **Socio-Economic Development Plan for Antigua and Barbuda (1981-85)** places great emphasis on the creation of jobs to ease the problem of unemployment by expanding the industrial sector of the economy, and on the supply of skilled labour necessary to support economic activity.

For the Plan to achieve even moderate success, opportunities for technical and vocational training will have to be significantly increased. This will require not only the expansion and upgrading of traditional programmes and institutions, but also the adoption of creative practices in both formal and non-formal settings in which work and training are closely aligned. In general, technical and vocational education will be guided by the need to promote the Government's objectives for the national education system, including:

1. The provision of a general education consistent with the demands and conditions of a modern industrial age; this involves creating a general awareness of the role of technology in everyday life and providing opportunities for the use of the hand in practical problem solving activities.
2. The provision of varied opportunities for the satisfaction of diverse cultural, academic and occupational interests in the realisation of individual potential.
3. The supply of required technical manpower to support national development projects, and the upgrading of the skills and managerial capabilities of existing personnel. To this end, both the formal and non-formal 'system' must offer intensive training in basic pre-vocational skills for students whose aptitudes and interests lead them to seek early employment, as

well as lay the foundation for employment at middle technician levels and for further academic or professional study.

Specifically, the major expansion or improvement projects envisaged in the 1981-85 Socio-Economic Development Plan are in agricultural production, tourism, utilities supply (mainly roads, water and electricity), agricultural processing, mining and oil refining.

Of the 3,350 new jobs expected to be created over the five year period - an estimated increase of about 12 per cent of the labour force - it is expected that 1,250 or 37 per cent of these will be in industry, 24 per cent in tourism, 18 per cent in agriculture, and 21 per cent in miscellaneous activities. All projects involve substantial construction components with far-reaching implications for the recruitment and training of various levels of qualified technical manpower in the building trades. The Plan makes provision for a wide-range of industrial training programmes, including programmes for the training of new workers on the shop floor as well as supervisory personnel at the lower and middle management levels.

The expansion of the tourist industry will result in increased emphasis on handicraft production. A handicraft centre is to be established to organise and stimulate the existing handicraft industry by providing the necessary technical advice and other forms of support. These measures, along with the planned expansion of existing "all-age" schools and the erection of new comprehensive schools will increase the supply of skilled and semi-skilled workers in the industrial arts, handicraft, and certain home economics disciplines.

To support these developments a vocational centre will be established for lower level training in craft, industrial arts, and home economics, and the technical offering of the Antigua State College will be expanded to provide an adequately equipped technical training force up to the junior secondary level. At the same time curriculum development and evaluation activities of the Ministry of Education will be reviewed and intensified to ensure that the qualitative aspects of the new projects receive due attention.

THE BAHAMAS

The Government's main economic development strategy over the next few years is to:

1. Generate additional economic activity to provide jobs for the unemployed and new entrants to the labour force.
2. Encourage new growth through export oriented industries.
3. Undertake an import substitution effort with appropriate linkages to the tourism sector.
4. Develop sufficient economic activity in the Family Islands to reduce or eliminate migration to New Providence.

To these ends major projects in agriculture, fisheries, forestry, tourism, urban development, inter-island air and sea transportation, health and

population control are to be developed. The Government is committed to self-sufficiency in agriculture.

If the country is to meet the economic objectives of the current Development Plan, it is obvious that individuals have to be trained for new jobs which are created through the generation of additional economic activity. The areas which have been identified as requiring trained individuals are: air-conditioning and refrigeration; agriculture; automotive mechanics; commerce; construction; electronics; fishing and related activities; food processing; forestry; health care; manufacturing, especially garment manufacturing; petro-chemicals; radio and television repair; solar energy; surveying and tourism.

While only three of the areas requiring trained individuals can be classified outright as food production processors, all of the areas can be classified as being in job creation and community development.

If an individual's training and education are advanced to the point where he/she has the requisite skills and knowledge of an area, and if the individual is entrepreneurially oriented, and if the funds are available, the trained individual has the potential to create jobs. This is clearly possible in fishing and agriculture where the entrepreneurial aspects of these areas have been set aside exclusively for Bahamians. Other areas with job creation potential are air-conditioning and refrigeration, automotive mechanics, construction activities, garment manufacturing, radio and television repair.

It can be concluded that the imparting of entrepreneurial skills and qualities requires immediate attention in any technical and vocational education and training programme. Education and training should include showing the individual how to become an employer. If there are employers there will be jobs; if there are jobs, basic needs and eventually higher needs can be satisfied in the individual. The satisfaction of an individual's needs leads to community betterment.

BARBADOS

The Development Plan (1979-83) of the Government of Barbados seeks among its major objectives to:

1. Maximise productive employment
2. Encourage and promote greater economic diversification
3. Develop a more diversified pattern of productive goods and services.

These objectives are linked very closely to the need to reduce unemployment which is projected to be down to about 6.1 per cent of the labour force by 1983.

It is recognised that in an effort to reduce unemployment, a major thrust has to be made to promote training in skills needed in industry. A high priority therefore has been given to technical and vocational education and training. This is evident by the construction and equipping of the new Samuel Jackman Prescod Polytechnic with the assistance of the

Inter-American Development Bank (IADB) and by the impetus which has been given to technical and vocational studies in secondary schools.

BRITISH VIRGIN ISLANDS

Technical and vocational education and training will make the greatest contribution to the following needs during the 1980s:

1. Training of skippers for yachts or charter trips to sail among the Virgin Islands
2. Training fishermen in modern techniques of fishing
3. Providing agricultural training for young citizens
4. Training British Virgin Islanders in middle management
5. Training in marine trades
6. Training in hospitality trades
7. Training in business studies.

CAYMAN ISLANDS

The economy of the Cayman Islands is based on tourism and banking. In a manpower survey of the Cayman Islands, 1978-1983, it was noted that:

1. Non-Caymanians predominate over Caymanians in the professional and managerial occupational groupings in finance, government, banking and hotel services.
2. Emphasis in the past has been too highly focussed on higher education for the few, as opposed to further education and training for the many.
3. Training efforts directed towards middle and lower level manpower can be more cost effective than higher education efforts for top level manpower.

In view of the foregoing, the following areas are being considered by Government:

1. The establishment of a college of technology which will be geared:
 - a. To fulfil/satisfy the needs and aims of Caymanians
 - b. Set a standard of competence comparable with existing patterns in the developed world
 - c. Upgrade and qualify Caymanians in the vocational and technical professions
 - d. Raise the level of the economic standards of our country and its people

2. The college will constitute and embody all schools of further education in the vocational and technical professions:
 - a. Hotel School
 - b. Marine School
 - c. Building and Trade School
 - d. Community College
 - e. Banking Institute
 - f. Any other schools for vocational/technical skills.

DOMINICA

Agricultural diversification and development is consistent with the Government's policy of decreasing the dependence of the island's farming community on the banana industry which has proved particularly vulnerable to high winds and the agencies of the external market i.e., international competition resulting in fluctuating green-boat prices which are daily becoming more and more uneconomical. Mitigating against this situation is a conglomeration of factors: the mountainous terrain; inadequate road infrastructure; high cost of inputs especially fertilizer; and high and frequent rainfall which renders spraying against leaf-spot ineffective and costly. The recovery and development of production is a question of economic survival for Dominica and of a viable way of life for her people.

The Position Document for the Sectors Survey Team 18-22 May 1981 prepared by the Ministry of Education of Dominica, has the following policy statements:

"There is need for a systematic and co-ordinated plan of tertiary, technical, vocational, community and adult education in the State College to service the development plans of Dominica. Much of the development must be in agro-industry and localised projects. There is a strong case for creating regional satellites of the State College at the under-utilised Portsmouth Secondary School, St. Andrews High School, Londonderry, and St. Joseph School. Each could develop as (a) senior secondary schools with technical and vocational offerings appropriate to their area; (b) area teachers' centres; (c) adult education centres for on-the-job vocational training and for community development education, and (d) for regional creative arts and cultural development.

"It is therefore essential that in those schools the needs in vocational education be integrated with the school building plans immediately. Designs for simple modular building for workshops to be added to existing schools are also urgently needed at least for 1982.

"An overall survey of equipment needed for vocational and technical education is long overdue, from technical to village skills levels in both formal and informal education. Their acquisition will depend in the first place on foreign aid".

Technical and vocational education and training will allow for the provision of a pool of skilled persons so vital to the Government's programme of industrialisation. This holds true for the new industries which are due to begin operations in Dominica soon, in particular, forestry and related occupations, and agro-processing.

Despite increased emphasis on industrialisation in the Government's developmental plans, the high cost of job creation and the present depressed state of the world economy suggests that great emphasis will have to be placed on self-reliance and self-employment as a means of solving the present unemployment problem, particularly among the nation's youth.

Training in technical and vocational skills will therefore allow for an increase in the number of persons who can earn a living through self-employment. Training in other skills, in the above context, especially in managerial skills for small businesses, is of paramount importance if self-employment is to make any meaningful contribution towards alleviating the unemployment situation.

GUYANA

Questions of what technical and vocational education and training can contribute to development become questions of what technical and vocational education and training can do to close the gap between "haves" and "have-nots". One school of thought opines that there are three main things to be done:

1. Reduce dependence upon developed countries that might lead to economic control. This we are told should be done even if it requires the abandonment of some goods and services from developed countries without substitution.
2. Exploit our resources ourselves using technology that does not re-introduce dependence or at least does so only minimally.
3. Trade in markets that offer fair rewards.

Three (3) above is in essence pure politics-economics and will not be considered further. One (1) and 2 are inter-related and both make heavy demands upon the technical capacity of the nation. Both relate to energy consumption. Many countries depend upon others for fuels and to reduce this dependence they must substitute energy sources from within their own borders. The aim then becomes development of alternative energy sources and production of food to the point of becoming self-sufficient in both. Both of these depend heavily upon technology that must in turn be sustained by technical and vocational education and training. Concerning 2, the exploitation of resources consumes energy, at least initially, and in the final analysis is also heavily dependent upon alternative energy sources and food production. These then are two areas in which technical and vocational education and training must make urgent and important contributions to development.

JAMAICA

The Government fully recognises that economic recovery during the eighties must be redressed by programmes that can: reduce unemployment; increase the level of productivity; generate foreign exchange earnings; and remove the social barriers that work contrary to the cohesiveness of the society.

A systematic approach to industrialisation supported by relevant industrial/technical/vocational training and education programmes have been identified as twin strategies.

In a recent study carried out to determine manpower needs in Jamaica two major conclusions emerged:

1. There is a considerable resource gap for trained personnel which will hamper the process of economic recovery. The resource gap has been estimated in the **Projections of Manpower Requirements (1982/83)** as follows:

"On the basis of a projected employment total of 869,900 persons in 1985, the resource gap for trained skilled personnel is estimated at 95,000 and that at the same time, there should be an over-supply of unskilled persons of approximately 273,000."

2. There is a large pool of unemployed young individuals between the ages of 14-29. The level of unemployment among youth was estimated by the National Planning Agency at October, 1979 to be 200,000 out of a youth labour force of 416,300.

Age Group	Unemployed	
	Male	Female
14 - 29	50.7%	82.3%
20 - 24	33.0%	60.1%
25 - 29	18.9%	46.9%

The foregoing table illustrates that there is a definite need for emphasis on human resource development programmes to which technical and vocational education and training can make a significant contribution.

MONTserrat

Technical and vocational education and training in Montserrat should make its greatest contribution in the 1980s towards meeting developmental needs in building/construction, commerce, tourism, agriculture, and light industries such as electronics assembly and cloth/clothes making.

ST CHRISTOPHER-NEVIS

The development needs of St. Christopher-Nevis are numerous and diverse. With varying degrees of emphasis, these have been conceptualised as follows:

1. Agricultural diversification, particularly;
 - a. Local food production
 - b. Livestock development
2. Tourism
3. Industrialisation with emphasis on light industries
4. Infrastructure development and improved service facilities, focussing on:
 - a. Sea and air communication
 - b. Road construction
 - c. Water
 - d. Telephone/electricity
5. Housing
6. Most significantly of all, education or investment in human resources.

The Government of St. Christopher-Nevis has quite rightly envisaged these needs, not as ends in themselves, but as a means towards a better standard of living, more employment opportunities, social equality and social justice and less dependence on the outside world.

The Central Planning Unit of the Government of St Christopher-Nevis is endeavouring to provide integrated sector planning whereby fiscal, educational, agricultural and infra-structural development programmes are carefully planned to match existing and projected manpower needs. In general these needs are:

1. To reduce the immediate problem of high unemployment and under-employment which is sometimes to the tune of 20 per cent during off-crop season.
2. To tackle the paradox whereby unemployment abounds for locals and because of inherited factors, highly skilled scientists, engineers and technicians have to be imported.
3. To reduce the number of unemployed school leavers.
4. To lessen the uncomfortable shortage of trained technicians and middle level workers in comparison with the more numerous band of persons only capable of performing at craft level.
5. To develop a technical teacher training programme bent on breaking the continued reliance on the employment of expatriate staff at the Technical College and decreasingly so in science and maths subjects at the Secondary Schools.

6. Programmes aimed at educating a core of flexible, versatile, trainable people, capable of performing a multiplicity of roles in view of the seasonal nature of employment opportunities.
7. Development of non-examination courses in arts and crafts, whereby housewives and school leavers could produce local products for sale on the tourist market, thereby banning the importation of foreign souvenirs/products which are often over stamped.

Some priorities for the 1980s

1. For technical/vocational education to contribute to the development needs of the island, the economic and social institutions and administrative machinery must all continue to be orchestrated towards that end.
2. Outdated equipment and machinery in schools and colleges should be replaced or otherwise updated.
3. For some schools existing buildings should be renovated, while others need to be replaced completely.
4. There is need to construct new buildings for science laboratories for several educational institutions, notably the Teachers' Training College.
5. Revision of school curricula to ensure that potential employees in the tourist trade and the agricultural sectors have a reasonable base on which further training can be built. For example, emphasis on cultural, aesthetic history, folk-lore, domestic science and foreign languages can help to equip potential trainees.
6. A more practical syllabus for science and maths based subjects for persons whose skills lie in agricultural and mechanical engineering, electronics, welding, road construction and agro-technology.
7. A realistic re-appraisal of the job opportunities which exist for the blue and white collar job seekers holding CXC agricultural certificates vis-a-vis the scope and opportunity for an agricultural science programme aimed at promoting home/backyard or kitchen gardens.

Limitations of Technical/Vocational Education

An idealistic hope of the role of technical and vocational education (as well as ruralisation of the curriculum) could lead to much disillusionment. Many planners and teachers hold the view that the urban school curricula should be made more relevant and that rural schools in particular should be oriented towards rural life and work. But unless unemployment is a result of inefficiencies in an otherwise sound system, major changes in the school curriculum will not solve the problem of educated unemployment. As Blaug has indicated to ask the school to prepare for clearly defined occupations is to request what is literally impossible.

ST LUCIA

An examination of Ministerial pronouncements, government sponsored reports and official documents, reveals an emerging agreement on the following as some of the priorities for the national development of St Lucia:

1. Promotion of self-reliance. This involves the development of the capacity of a people to solve their own problems, an attack on the psychology of dependence, and getting people to realise that their destiny lies in their own hands.
2. Development of a serious work-ethic. This refers to the importance of instilling proper attitudes to work, including the eradication of the view that some traditional forms or levels of work are undignified.
3. Uniformity of provision between rural and urban areas.
4. Reducing unemployment. The problem of unemployment is to receive particular attention, and in this regard the following strategies, among others, will be used:
 - a. Job creation through a balanced programme of inviting foreign investment on the one hand; and on the other, of assisting local industry and encouraging self-employment.
 - b. Provision of pre-employment and in-service training opportunities for the labour force for self, wage, and salaried employment in all sectors of the economy.
 - c. Reducing the imbalance in employment opportunities for particular groups, e.g. young people and women.
5. Self-sufficiency in food production.
6. Community development through joint local self-help action and participation in decision-making.
7. Diversification of national output by acquiring new skills, developing appropriate technologies, and promoting the use of indigenous materials.
8. Closer liaison between the educational system and the world of work, and involving educational institutions in the examination and solution of the problems facing society.
9. Sectoral development. Major emphasis will be placed on the development of the agricultural, tourism and industrial sectors of the economy.

This list is not intended to be exhaustive, but it is suggestive generally of current thinking about national development for St. Lucia and in particular of those development objectives to which technical and vocational education and training can contribute.

ST VINCENT AND THE GRENADINES

Limited funds for providing much needed facilities and a dire shortage of trained teaching personnel are two of the many formidable problems with which the Government is faced in the effort to achieve its goals.

The eruption of La Soufriere volcano in April of 1979 and a visit by hurricane Allen one year later have helped to aggravate an already serious situation.

The Government's policy for the future is to make use of local resources and to make every effort to obtain, whenever and wherever possible, any form of assistance from external agencies which are genuinely willing to extend the hand of friendship to assist us during this early and very trying period of our national development.

TURKS AND CAICOS

Education within the Turks and Caicos Islands followed the pattern of education in small British colonies i.e. emphasis was placed on the teaching of the three Rs with scanty exposure to the sciences and social studies. This was supplemented by the introduction of secondary education mainly through the efforts of private bodies. These decided the nature and content of subjects to be taught. It was not surprising that technical education was never introduced at a level other than rudimentary training in some of the basic trades: carpentry, straw work, turtle shell and sea shell craft, and embroidery. In the late 1960s several factors caused a careful review of the education system, and technical drawing became an integral part of the secondary school curriculum.

Recent developmental trends within these islands have revealed the acute shortage that exists in manpower and the training of skills which will only be met by extensive technical and vocational training. This contribution may be discussed under four heads.

Trained Technicians

When one considers the importance of the trained technician to service the many building programmes in these islands, and the total dependence of such programmes on expatriate personnel one realises that at the professional level - surveyors, contractors and engineers - an input from technical training is an asset.

Skilled Craftsmen

With the advent of the power driven tool and modern building techniques, upgrading of the few local craftsmen is a requisite. Previously this area suffered a brain drain because of the poor economic outlook and the education system now has to train persons to replace those who have migrated.

Semi-skilled Personnel

High schools will be asked to expose these persons to the practical aspects of technical education. Shortage in this area may be judged by the fact that more than 90 per cent of the personnel presently employed at this level is from overseas.

Crafts

Improved means of communication have led to an increase in tourism and there is a demand for articles which are locally made. Raw materials can be obtained e.g. sea shells, turtle shell, fish scales and local straw and there are individuals who specialise in local craft. The demand cannot be met. Training in this area will not only encourage self-help projects, but lead to lucrative returns.

Commonwealth Pacific/Indian Ocean

FIJI

Fiji is basically an agricultural country and it will remain so in the foreseeable future. Fiji does not have the raw materials to become an industrialised nation. Over half the population employed are directly engaged in agriculture while many others are occupied in processing or handling the agricultural products which earn a large percentage of Fiji's export income. Sugar cane is Fiji's most important cash crop. Raw sugar accounts for between 60 - 70 per cent of Fiji's exports. Besides agriculture, tourism plays an important role in the economic life of the people of Fiji. The industry has grown significantly over the years. It can be rated as the second biggest industry next to sugar. Development of pine forests and the sale of timber products will in future have a significant effect on the economy.

During Development Plan 8 (1981-85) the Government's policy is to provide students with the opportunity to take more practical subjects, so that overall education will be well balanced and tailored to employment as well as academic considerations. Practical education is currently taught in two main ways:

1. Vocational training offered at technical institutes, rural training centres and by youth organisations
2. Normal school programmes which include Industrial Arts, Home Economics, school gardening and multi-craft subjects.

Currently some 150,000 students are estimated to leave school annually and of this number over half the school leavers end up with occupations definitely requiring some practical knowledge including home duties, agriculture, etc. The need to include practical education in the largely academic curriculum currently offered is obvious.

The Development Plan for the period 1981-85 places emphasis on the need to provide an education system more realistically linked to the employment pattern. The need to introduce Agro-Tech. courses (inter-disciplinary agriculture and technical courses combining agricultural science, mechanics and commercial skills) is appropriately emphasised.

In a changed and changing commercial and industrial economy such as ours, technical and vocational education plays an important role not only in the equipping of the individual to ensure a livelihood for himself and his dependents but also in fulfilling the manpower requirements of the nation.

As technical and vocational education provides students with marketable vocational skills for emerging occupations, unemployment is reduced. Students trained for work in specific vocations find little difficulty in obtaining employment and where employment opportunities are unavailable, they may resort to self-employment.

It is acknowledged that as a general responsibility, the contribution of technical and vocational education and training will be in the areas of skills upgrading in all sectors to facilitate the objective of localisation and to provide for manpower requirements. Technical and vocational institutes will be expected to place stronger emphasis upon the provision of basic skills to unemployed people, school leavers and youths to bring down unemployment rates. Plans to set up small scale technology and manufacturing industries should be considered. The availability of human resources to man production plants will necessitate the heavy involvement of technical and vocational education and training to ensure necessary skills are available in the labour pool.

The areas of need which currently exist in Fiji and will continue to exist for several years are summarised below:

1. Agriculture and agricultural engineering
 - a. Food processing
 - b. Rice growing
 - c. Dairy and cattle farming
2. Fisheries - processing, etc.
3. Forestry - timber and timber products
4. Electrical engineering
 - a. Heavy current - generation and distribution
 - b. Light current - refrigeration, air conditioning, domestic appliance repairs
 - c. Electrical devices - domestic and industrial
5. Marine engineering
6. Computer science

7. Civil Engineering - road, water supplies, structural design, wastewater and sewerage, wharves and jetties
8. Mechanical Engineering - installation, operation and maintenance rather than design and construction.

KIRIBATI

Kiribati is a group of atoll islands scattered over more than two million square miles of Pacific Ocean. The islands are remote from large centres of civilisation and the scattered nature of the Republic and its remoteness present unique and difficult problems in administration, transport and communication.

Since the mining of phosphate ceased on Banaba in November 1979 the Kiribati government has no other source of revenue than that derived from the export of copra and fish, the latter of which the Government has designated a high priority area during the 1980s for development.

Since independence Kiribati has been considering its socio-economic circumstances, to learn from the past, evaluate the present and anticipate the future. To analyse the above in a meaningful way, Government has had to consider very carefully the delicate balance between known population and the resources that govern the viability of the country. Such considerations have led government to produce a major **Decentralisation Study** which is currently under detailed analysis. The study directs attention to a wide range of issues relating to population versus land, population versus subsistence resources, drought versus population immigration, cash versus subsistence and the viability of Kiribati and the role of government. It recognises the need for the economic development of Kiribati's limited natural resources but places the greatest emphasis on rural development which it is anticipated may therefore become national development.

Prior to independence Kiribati witnessed a high rate of development with the importation of modern technology such as computers and sophisticated communication systems accompanied also by development in the construction industry. However, like many other small developing islands the rate at which skills are being developed is not keeping pace with the imported technology. Hence a situation has developed in which a large percentage of the workforce can only be viewed as semi-skilled, thereby placing a greater dependence on the need for overseas officers. Government in tackling this problem has produced a localisation plan which in turn lays down very clear directives for training if the plan is to be successful. Training therefore is a priority area not only for localisation but in order that skilled manpower is available to achieve the objectives of the National Development Plan for Kiribati.

Emanating from a seminar held in 1980 on Employment and Urbanisation the government has already introduced a labour rotation programme for unskilled and semi-skilled labour, based on an island quota system. In addition, the seminar endorsed the need for greater emphasis to be placed on the development of rural skills, primarily those associated with village level technology.

The introduction of labour rotation, for the out-islands and the growing emphasis being placed on rural development and development of rural skills has generated the need for a complete reassessment of the training required to implement the changing policies envisaged for the future development of Kiribati.

It is anticipated therefore that a major input of technical and vocational education and training will be directed towards the rural sector to encourage self-help projects, self-sufficiency and self reliance in a predominantly rural subsistence economy. Additionally, the importation of new technology into the modern sector will necessitate a major programme in upgrading of skills at both craft and technician level to accommodate the changing pattern of development in Kiribati. Historically I-Kiribati people have always had strong associations with maritime occupations. Employment and remittances received from seamen trained in Kiribati and employed overseas are a vital factor in the economic development of the islands. Apart from greater numbers of seafarers who will have to be trained, continuing adaption of training programmes for all sea-going personnel will be required in order to prepare them to operate new and more complex systems and equipment and to perform new tasks in advanced types of vessels designed for special functions.

Little doubt now exists that during the 1980s those in technical and vocational education and training will have to focus more specifically on training programmes allied to the needs of rural development objectives as identified in the National Development Plan. Severe financial constraints will also dictate that training must be cost effective and considerable emphasis will be placed on training to improve efficiency in all sectors of the economy. Inherent in such an approach we have identified the training of supervisors and managers as a priority area, if training is to have a meaningful impact in achieving national and rural development objectives.

It would be remiss not to mention the role of women and their contribution and greater participation in the development process. Community Affairs Officers, in consultation with the Women's Federation and the Technical Institute, are planning a variety of training programmes during the next development plan period for womens' interest groups from the outer islands to undertake training in appropriate technology, public health, child care, handicraft, family management and other relevant programmes.

MAURITIUS

In the current Mauritius Development Plan, it has been stated that the country's most important resource is its manpower and that a well-motivated labour force possessing the requisite mental and physical skills for a modern economy is the most valuable national asset. In order to meet the demand generated by prospective economic development, emphasis is being placed on changing the quality of secondary education. The Mauritius Institute of Education (MIE) has been set up with the following long-term objectives:

1. As an innovative centre, the Institute is expected to act as a catalyst in the education system and guide it to meet the needs of the country. To this end the MIE has undertaken studies in identifying national requirements in curriculum development with

a view to bridging the gap between general education on the one hand and technical and vocational education on the other.

2. The MIE has also concerned itself with the improvement of the quality of teacher education by providing appropriate in-service and pre-service training courses.
3. The Institute has also been given the responsibility to carry out a nationwide examination at the Junior Secondary education level.

The Central Training Office set up by the Government is a body corporate under the Ministry of Education and Central Affairs. The objectives of the Office are to:

1. Monitor the needs for occupational training in consultation with the Ministry for Employment.
2. Co-ordinate all such existing training schemes sponsored by Government as the Minister may determine.
3. Provide for, promote, assist in and regulate the training or apprenticeship of persons employed or to be employed in commerce or industry.

The duties of the office are to:

1. Advise the Minister on matters relating to vocational and technical education and industrial training.
2. Carry out investigations and make recommendations on any matter connected with the Act.
3. Make annual reports and such special reports as the Minister may from time to time determine.

The Lycee Polytechnic has been set up to enhance the vocational field by providing three year and four year courses leading to the development of skilled workers and technicians.