

7. IMPROVING THE EFFECTIVENESS OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING THROUGH REGIONAL AND INTERNATIONAL CO-OPERATION

- 7.1 The analysis developed by the meeting emphasised the potential for the increased use of indigenous resources for technical and vocational education and training. The use of these resources was viewed as central to the design of innovative programmes and projects. Nevertheless, critical inputs of outside assistance can make a major difference to the success or failure of a programme.
- 7.2 Analysis of the Country Papers (extracts from which are reproduced at the end of this chapter), suggests that various forms of assistance are sought after in the field of technical and vocational education and training in the Commonwealth Caribbean and elsewhere. The meeting recognised six main forms of assistance and attempted to rank them according to need, and based on the Country Papers.

Ranking	Types of Assistance
1	Finance
2	Personnel - advisers - qualified personnel - teacher trainers - teachers
3	Training facilities - workshops and classrooms - equipment and machinery
4	Pooling and dissemination of information - curriculum and syllabuses
5	Research and evaluation
6	Student exchange

- 7.3 The meeting examined these forms of assistance against the regional backdrop - the Commonwealth Caribbean - and also the wider international "aid" scene. It was recognised that valuable forms of assistance already exist but that the key to effectiveness of such assistance was its ability, in whatever form, to foster the national capacity to undertake technical and vocational education and training. Support for indigenous training capacity is the acid test for external assistance.
- 7.4 Within the Commonwealth Caribbean some but not all of the six forms of assistance identified in paragraph 7.2 are to be found. Finance flows

into the Caribbean Examinations Council (CXC), the University of the West Indies (UWI), the Caribbean Institute of Mass Communication (CAR/MAC), the Caribbean Development Bank (CDB) and the Caribbean Community Secretariat (CARICOM) from countries within the region and beyond.

- 7.5 Training personnel may be provided by CXC, and resource personnel by UWI. On a very limited scale an exchange of personnel exists on a bilateral country-to-country basis within the Caribbean.
- 7.6 A number of institutions offer regional training facilities. They include the College of Arts, Science and Technology (CAST) in Jamaica, the John S Donaldson Technical Institute in Trinidad and Tobago, the Samuel Jackman Prescod Polytechnic in Barbados, the Technical Teacher's Training College in St Lucia, Antigua State College, the Barbados Community College, Cyril Potter College in Guyana and the Eastern Caribbean Institute of Agriculture and Forestry (ECIAF).
- 7.7 Information flows from and to CXC, CARICOM, the Caribbean Centre for Development Administration (CARICAD), the Caribbean Food and Nutrition Institute (CFNI), Development Finance Corporations and through professional organisations.
- 7.8 A research and evaluation role is played by CXC, CAST, the Vocational Training Development Institute (VTDI) in Jamaica, the Guyana Research Council and its counterpart in Jamaica.
- 7.9 There is no formal programme of student exchange in the Commonwealth Caribbean.
- 7.10 It was agreed that there is room for considerable improvement in regional co-operation. In particular, **the meeting recommended that governments should:**
 - Give strong support to technical co-operation between developing countries in the field of technical and vocational education and training. This could include the exchange of teachers and students within and beyond the Commonwealth Caribbean, where this is perceived to be developmentally relevant. Other possibilities include the networking of training syllabuses, exchange of prototypes, attachments to ministries and institutions, and the development of professional associations.
- 7.11 This TCDC approach (Technical Co-operation among Developing Countries) would be enhanced by the formation of a regional association of technical colleges and institutions which would itself promote technical and vocational education in the Caribbean region. The meeting noted the establishment of the Commonwealth Association of Polytechnics in Africa (CAPA) and the recommendation of the Eighth Commonwealth Education Conference (8CEC) held in Sri Lanka, 1980:

"... that the Commonwealth Secretariat should take appropriate steps to establish an association similar to the Commonwealth Association of Polytechnics in Africa in other regions after careful consideration of any special regional, national and institutional aspects."

The colleges are focal points for the provision of technical and vocational education and training and they exist in a region where isolation from new and significant information is a characteristic of many small countries. This type of institutional network would provide a framework for the exchange of information, prototypes and syllabuses and the movement of expert personnel. Such links could be strengthened within the association by the twinning of two or more colleges in neighbouring countries or with similar specialities (and not excluding twinning with institutions outside the region).

- 7.12 Additionally, existing regional agencies within the Caribbean, such as CARICOM, should be encouraged to play a greater role in furthering technical and vocational education in the region. For example, a technical education officer, attached to an agency such as CARICOM could actively promote and advise on the development of training facilities and programmes in members states. One task for such an officer or for a regional agency is the preparation of a directory of training needs, institutions and specialist personnel. The appointment of such an officer and the clearing house tasks which he or she would undertake were likely, in the view of the meeting, to require funding from outside the region but this would be a clear example of outside assistance, regional and beyond, promoting indigenous national training development. Similar funding support would also be needed to enable the movement of personnel within the region to take place.
- 7.13 The meeting considered that regional Caribbean support should be given to national institutions wishing to develop regional centres within their own countries which could offer services to the surrounding communities in the form of advisory expertise and training in such fields as agriculture, fishing, and housebuilding.
- 7.14 The meeting convened a sub-group which identified the main international sources of assistance for technical and vocational education and training from outside the Commonwealth Caribbean: These include:
1. Canadian International Development Agency (CIDA)
 - attachments (short-term) one to three year full time programmes
 - scholarships
 - funding
 - salaries for personnel
 2. Overseas Development Administration, British Development Division (DEVDIV)
 - training of personnel through scholarships and fellowships
 - short attachments
 - provision of equipment

3. United States Aid (USAID)
 - provision of assistance for curriculum development
 - funding for experimental projects e.g. alternative energy
4. Commonwealth Fund for Technical Co-operation (CFTC) of the Commonwealth Secretariat
 - provision of experts, advisers and consultants on a short term or long term basis
 - support for study visits
 - finance to support regional meetings
5. Unesco
 - provision of experts
 - host for regional meetings
6. United Nations Development Programme (UNDP)
 - training of personnel through the provision of scholarships
 - funds for equipment
 - finance for joint projects
 - provision of advisers
7. Organisation of American States (OAS)
 - training of personnel through scholarships to member countries
8. International Labour Organisation (ILO)
 - provision of experts
 - organisation of short courses and services
 - translation of resource materials
9. Non-governmental organisations
 - college scholarships

- equipment
- training personnel for short courses

7.15 Whilst the provision of such aid is welcome, important needs remain unsatisfied. There is a particular need for financial assistance to support capital expenditure for technical and vocational education and training. The provision of basic equipment and building facilities is a priority requirement in most Island Developing and Other Specially Disadvantaged States.

7.16 In line with the recommendations on increased and improved regional and international co-operation (see paras 7.10 - 7.13 above) **the meeting recommended that the Commonwealth Secretariat should:**

- Provide expert assistance, through the mechanisms of the Commonwealth Fund for Technical Co-operation, to help with the promotion of technical and vocational education and training in the Commonwealth Caribbean. A consultant should be attached to an appropriate regional institution able to advise on the development of technical and vocational education and training in member states.
- Continue to gather and disseminate information on technical and vocational education and training programmes throughout the Commonwealth.
- Provide assistance with the formation of a regional association of technical colleges and institutions which would promote technical and vocational education in the Caribbean region.

Further, the meeting recommended that the Commonwealth Secretariat and/or other agencies should:

- Prepare directories of funding agencies and distribute these widely in order to assist governments to develop a meaningful dialogue with those external agencies concerned with the promotion of technical and vocational education and training.
- Increase the proportion of their expenditure which is devoted to the development of technical and vocational education and training.
- Provide assistance for the purpose of training manpower planners from Island Developing and Other Specially Disadvantaged States.
- Provide assistance for research into the effective and efficient development of technical and vocational education and training in Island Developing and Other Specially Disadvantaged States.

7.17 Whilst regional and wider international assistance is identified separately for ease of discussion they are rarely mutually exclusive. Invariably supportive regional programmes require outside assistance. For example,

it may be decided that a group of countries would benefit from the availability of a peripatetic training team. Regionally this would benefit from a TCDC approach with member countries contributing to the establishment and work of the team. When the team is in any one country that country would pay the costs. However, initially such a team may require the assistance of advisers and consultants from overseas for the training of the members of the peripatetic team. On many occasions sources of assistance are not linked in this way and individual countries suffer from a series of unrelated internationally assisted projects which do not result in the establishment of an indigenous training capability.

- 7.18 A recognition of existing forms of aid and of the potential which improved and increased assistance might bring to national training programmes provides a final stage in the sequential process of thought exemplified by the meeting in The Bahamas. Once a very specific development need has been identified and its appropriate training response established the role of outside assistance can be gauged, following an appreciation of existing training and managerial skills, and available financial and material resources.

COUNTRY PAPER EXTRACTS ON IMPROVING THE EFFECTIVENESS OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING THROUGH REGIONAL AND INTERNATIONAL CO-OPERATION

Commonwealth Caribbean

ANGUILLA

Anguilla is making every effort to establish contact with regional and international institutions and organisations to assist it develop a relevant and effective technical and vocational education and training programme and an appropriate crafts industry. So far we have received assistance from the British Development Division in the Caribbean (DEVDIV), Barbados and CIDA.

Our view is that there should be more co-operation among regional and international funding agencies to avoid duplication of assistance. Anguilla is restricted in getting certain training needs met because those funding organisations approached have similar terms of reference for training assistance. Our experience has shown that the kind of training requested by some small islands tend to be similar in nature. This in Anguilla's view reduces the quantum of funds that can be made available to any one island for meeting priority training needs.

ANTIGUA AND BARBUDA

In the provision of an effective and innovative programme of technical and vocational education in small countries such as Antigua and Barbuda there are some major factors that make co-operation at the regional and international level not only useful, but essential. Among those factors are:

1. The scarcity and cost of appropriately qualified, experienced, and creative personnel available for educational enterprise in competition with industry.
2. The value of sharing experiences and avoiding serious mistakes with far-reaching consequences; notwithstanding the fact that "events are not repeatable" from one country to another in any activity involving human beings, there are some common lessons to be learned not only from various attempts to build bridges but to build institutions in similar physical and social environments.
3. The value of the opportunity provided, to test and improve new sets of ideas by applying them, with the necessary modifications, in different settings, since a given social innovation cannot be manipulated or modified at will in a single environment.

Regional and international co-operation can be usefully developed in the following areas:

1. The exchange of strategic personnel to gain first hand experience of alternative systems.
2. The attachment of leadership staff on specific short-term assignments.
3. The provision of training opportunities in existing institutions to nationals of countries where the separate establishment of such institutions would not prove feasible.
4. Promotion of regional and international seminars on particular innovative practices and ideas, in countries where relevant field experiences could be provided.
5. The organisation and conduct of joint research and evaluation projects.
6. The organisation of financial assistance for joint or individual projects. While the emphasis should always be on self-reliance and maximum utilisation of local resources, some measure of external assistance is indispensable in the context of prevailing social and economic conditions in small countries.

THE BAHAMAS

Regionalism with strong local flavouring; internationalism with high regional overtones and strong local flavouring, are the prescriptions for successful partnerships.

Any form of co-operation, regional or international, must conform with the educational, social, cultural, political and legal conditions prevailing in a community. Usually close attention is given to the legal and political conditions but normally educational, social and cultural factors are ignored, the results being more destruction than construction.

Anecdote Some time ago, a team of consultants from the agricultural department of a metropolitan country visited a country in the Mid-East. When they observed that the farmers were using ploughing systems powered by human and animal effort, they criticised the process and suggested that they use modern machinery which would dig deeper furrows and relieve them of the burdensome chore. The people, putting full faith in the advisers because after all they were "experts", followed their instructions. The seeds which were planted never emerged beyond the seedling stage. The deep plough of the machinery exposed too much of the soil and what moisture was contained therein was evaporated by the desert sun.

BARBADOS

Under the Commonwealth Fund for Technical Co-operation (CFTC) many Commonwealth Caribbean countries have benefited in technical and vocational education and training. Also, there has been for many years

close collaboration between Caribbean countries in the sharing of technical services. For example, CARICOM nationals recommended by their governments are admitted into technical programmes at both the Barbados Community College and the Samuel Jackman Prescod Polytechnic. There are agreements with some governments for free admission of students while nominal fees, not representing the true economic cost, are paid by the non-national students.

In some of the territories there are some technical and vocational institutions which have made great impact on the development programmes of these and other countries. There are also very successful innovative programmes, for example, the Skills Training Programme of Barbados. However, most of these institutions and programmes have concentrated on solving national problems.

There is now a need for these institutions to collaborate in examining regional problems and finding solutions for them. Areas in which there is much scope for co-operation are:

1. Examinations. Many countries still use the City and Guilds of London syllabuses and take examinations set by this examining body despite the fact that some aspects of the syllabuses are not relevant for the region. Regional institutions could therefore co-operate in writing more appropriate syllabuses and work towards the setting up of regional examinations in technical and vocational education and training.
2. Training of technical and vocational teachers. There is still a shortage of trained teachers of technical and vocational subjects. This shortage is likely to continue for a long time since there is a lack of teacher trainers in this field and the skills cover a wide range. There is need for greater regional discussion on this matter, a greater dissemination of information, and a pooling of resources to alleviate the problem.

The two main areas of regional co-operation referred to above would require international funding for maximum success to be achieved. It is after regional bodies have discussed the problems and prepared a plan of action that international organisations could be requested to assist through funding and technical expertise. International funding could be channelled through an existing regional organisation such as CARICOM.

BRITISH VIRGIN ISLANDS

In the formal sector it is envisaged that international agencies could assist technical and vocational education and training in the British Virgin Islands in three areas:

1. Training of technical and vocational education teachers
2. Assisting in the construction of classrooms, workshops and laboratories
3. Providing equipment for such classrooms, workshops and laboratories.

In the non-formal sector assistance would be welcomed in:

1. Providing experts in specific areas for varying periods. These could assist in training British Virgin Islanders in a manner similar to the existing Batik Project.
2. Making available grants to projects which will train young people for employment.

CAYMAN ISLANDS

Heads of department from technical and vocational schools meet at international level once per year. Heads of training schools visit regional institutions to assess and evaluate similar needs, advantages and disadvantages. The Technical College is to be an extension of, and aligned with the University of the West Indies.

DOMINICA

Though organisations such as OAS, Inter-American Centre for Research and Documentation on Vocational Training (Cinterfor), Rotary, CIDA, Unesco, and ILO have been working independently, there is evidence of a willingness to co-operate in the area of technical and vocational education and training. The Government of Dominica is fully supportive of this trend. CARICOM has indicated a willingness to act as a co-ordinator of the activities of these funding agencies.

The Middle Income Developing Countries (MDC's) seem to have been fairly successful in establishing technical and vocational training institutions at various levels; for example, Papine and CAST in Jamaica; Samuel Jackman Prescod Polytechnic in Barbados; the John S Donaldson Institute in Trinidad and Tobago. These institutions have expressed a willingness to allocate places to LDC students.

JAMAICA

University of the West Indies (UWI). This institution now has faculties on two of its campuses that offer technical education in the areas of agriculture and engineering. These faculties besides supporting research in general, provide scope for experimentation and investigation relating to crop and animal sciences.

Caribbean Examinations Council (CXC). A regional examination body that has concerned itself not only with administering examinations but developing curricula to include both general, technical and vocational education. It serves 14 territories and employs practicing educators to assist in the development of curricula, the marking of examination scripts and the preparation of instructional materials.

CARICOM. Trade is an outcome of industrialisation. CARICOM assists in maintaining regional trade. As the demand for industrialised goods in the region increases, so will the range and quality of goods produced. Innovation in design and marketing strategies are likely outcomes.

International organisations. Jamaica has established working relationships with a number of international organisations and institutions. These links provide further scope for co-operation. To date a number of grants, scholarships and loans have been extended to assist in the development of technical and vocational programmes.

MONTSERRAT

If, on the whole, technical and vocational education and training programmes in Montserrat are to be improved, regional and international help will be needed in two main areas:

1. Provision of skilled personnel to conduct training. From the people trained, Montserrat should be able, eventually, to provide its own trainers for the major formal and non-formal technical and vocational areas.
2. Provision of financial assistance to improve the infrastructure necessary for training.

ST CHRISTOPHER-NEVIS

It has been well said, "It is more blessed to give than to receive". St Christopher-Nevis is willing to give the widow's mite:

1. To share the results of experimentation especially in the use of solar energy, agricultural diversification and crop experimentation.
2. To make available on a short term basis the services of material specialists in such fields as teacher education, technical and vocational education, curriculum, and administration and planning.
3. To host educational seminars, workshops and meetings.
4. To provide a limited number of places for students from sister islands to pursue courses in air conditioning and refrigeration or the construction trades.

Co-operation required from regional and international sources:

1. To provide facilities, materials and equipment to update and expand the existing resources in the Technical College and the Secondary School.
2. To construct and equip a multi-purpose working building for technical and vocational education, and adult and continuing education for both pupils and adults in such fields as construction skills, metal work, basic electricity, basic mechanical skills and home economics.
3. To make available fellowships - about two each year:

- a. At technician level
 - b. At graduate level - until at least 15 persons are trained.
4. To provide funds for persons to have various short term attachments to other third world and even developed countries that have successful projects utilising indigenous resources.

ST LUCIA

Developing a territorial capability for the documenting, regular dissemination, and evaluation research of innovative programmes.

Promotion of regional meetings for the pooling of national experiences, for developing strategies for introducing innovative programmes in developing countries, and for identifying implementation obstacles.

Provision of fellowships for the study of relevant innovative programmes.

Exchange of experts involved in innovative programmes.

TURKS AND CAICOS

The scattered nature of the Turks and Caicos Islands and its location make it unique in many aspects and hence the need for co-operation at regional level. This should include the following:

1. Exchange of data. Because of the number of participants involved in training programmes it is essential that workshops in technical education should be on a regional basis. Use should be made of regional institutions which offer courses of this nature.
2. Participation in workshops. This could be done both at Ministry level and on a school-to-school basis. Islands having similar economic backgrounds could benefit from our skill in craft, and we from their knowledge.
3. Exchange of personnel. For many reasons it is impossible for persons to take advantage of training overseas. Exchange of teachers whether on a long-term or short-term basis would greatly enhance the growth of technical education, and serve to correlate it throughout the region.

Commonwealth Pacific/Indian Ocean

FIJI

Consideration should be given to the following points which offer scope for improved co-operation to maximise the effectiveness of technical and vocational education in the region:

1. Staff: It may not be incorrect to say that most developing countries of the region do not have well qualified and experienced local teachers in sufficient numbers to staff technical institutes. No doubt efforts are being made to improve the situation but it would be some time before the countries could become self-sufficient in the area of staffing.

It is therefore suggested that:

- a. Where possible specialist advisers should be made available to the countries needing the services of such people.
 - b. Consideration should be given to providing teaching staff to countries which are yet to become self-sufficient.
 - c. A teacher exchange scheme should be considered. This will help teachers appreciate each others problems and will also open new avenues for the flow of information.
 - d. Short term attachments for teachers to technical institutes and colleges of higher learning in developed nations should be considered.
 - e. More scholarships under bilateral aid programmes and third country award schemes should be made available to improve qualifications and training.
2. Curriculum: Where possible there should be more opportunities for countries to exchange curriculum and course prescriptions, thus enabling the regional countries to use the information available for developing courses relevant to their needs. Where necessary countries which do not have the means to conduct their own local examinations should be encouraged to use facilities available in other countries of the region. Countries which do not have the means to conduct their own local examinations should be encouraged to use facilities available in other countries of the region.
 3. Students: Countries which do not have adequate facilities for technical and vocational education and training should be rendered assistance by the well-to-do nations by making available their facilities for such training. Where possible students should be given scholarships either by their own governments or by foreign agencies.
 4. Finance: It is needless to mention that technical and vocational education and training is an expensive business for the countries of the region. Because of financial constraints facing the regional countries, it is not possible for them to provide the desired level of technical education and training to the people engaged in various sectors of industry and commerce.
 5. Consideration should also be given to providing financial assistance for capital projects.

KIRIBATI

Continuing severe financial constraints during the 1980s will necessitate greater participation and interaction at both the international and regional levels to avoid duplication of effort and to make training more cost effective, certainly in small and remote developing islands. Many small island states will be looking towards a significant input from a variety of international agencies to set up efficient information networks and supply expertise in specific areas of technical and vocational education and training. Conferences, seminars and workshops are, within the Pacific context, vital forums for exchange of information and interaction of people within the region.

Whilst there is considerable activity taking place within the region there exists no real co-ordination or machinery for the transfer of ideas, training material development, and information to the many and remote island states. Certainly from our point of view we would welcome focal points being established in each island state, such focal points being specifically identified with the training function and responsible for dissemination and distribution of information on technical and vocational education and training. We in Kiribati feel that technical institutions in particular should have a far broader and more innovative role to play in the overall development process.

MAURITIUS

One Industrial Trade Training Centre was the pilot project of the United Nations Development Programme (UNDP) which was set up in 1968 and was executed by the International Labour Office (ILO). It was handed over to the Government of Mauritius in 1973 and has since been run by an entirely Mauritian staff under the control of the Ministry of Education and Cultural Affairs.

The second Industrial Trade Training Centre was financed partially by the Government of India. We still have two Indian experts who are expected to leave by June 1982.

The Lycee Polytechnique has been totally financed by the French Government. We have five French advisers with local counterparts.