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**BELIZE**

**Education Sector Assessment**

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## FOREWORD

The assessment team wishes to thank the officers, principals, and teachers of the Ministry of Education and schools of Belize for their cooperation and assistance with this study. They responded positively and graciously to our every request for help and information and were candid in response to our queries.

The USAID/Belize Mission gave the team excellent guidance, and we are most appreciative of the assistance given us by Mary Ellen Tanamly, General Development Officer, and Cynthia Franklin, Education Officer.

The assessment was done in a limited time span of three weeks. It helped tremendously that one of team members, David Eck, (Rural Education Officer of the Ministry of Education of Belize) is an expert in Belizean rural education and another of our members, Romeo M. Massey, has been a consultant in Belize many times over the past twelve years.

The team was impressed with the dedication of the educators, principals, and teachers of Belize, and we believe that it is this dedication which will result in continued improvement in the education system.

Charles B. Green  
Chief-of-Party

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## ACRONYMS

(This list is for reference purposes. This report made as little use of acronyms as possible to make for easier reading.)

"A" Level:	Advanced Level G.C.E. Examination
AED:	Academy for Educational Development
AID:	Agency for International Development
BCA:	Belize College of Agriculture
BDD:	British Development Division
BEIPU:	Belize-Export and Investment Promotion Unit
BEST:	Belize Enterprise for Sustained Technology
BIM:	Belize Institute of Management
BNSE:	Belize National Selection Examination
BTC:	Belize Teacher's College
BTIA:	Belize Tourism Industry Association
BZ\$:	Belizean dollars
CARE:	Cooperative for American Relief Everywhere
CBVTE	Competency-Based Vocational-Technical Education
CDU:	Curriculum Development Unit
CIDA	Canadian International Development Agency
CXC:	Caribbean Examinations Council
EEC:	European Economic Community
GDP:	Gross Domestic Product
GROWTH:	Gaining Relevant Orientation to Work, Training and Help
IESC:	International Executive Service Corps
IIR:	International Institute for Research
Infant I, II:	First two grades of Belize Primary Schools
MOE:	Ministry of Education

NDF/B:	National Development Foundation of Belize
"O" Level	Ordinary Level, G.C.E. Examination
PCV:	Peace Corps Volunteer
PPTTP:	Posterized Programmed Teaching Technology Project
R.C.:	Roman Catholic
REAP:	Relevant Education for Agriculture and Production
RDO/C:	Regional Development Office, Caribbean (USAID)
Standards I - VI:	Grades 3 to 8 in Belize Primary Schools
TEP:	Training for Employment and Productivity
TESL:	Teaching English to Speakers of Other Languages
UCB:	University College of Belize
USAID:	United States Agency for International Development
UWI:	University of the West Indies
YDC:	Youth Development Centre
VTC:	Vocational Training Centre

## **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

### Introduction

Belize is a country the size of Massachusetts but with a population of less than 200,000. A small, sparsely-settled country, it has been buffeted by world situations over which it has no control, including quota systems for its main exports, oil price increases, and changes in the valuation of the currencies of its two major trading partners: the United Kingdom and the United States.

Until 1964 it was a British Colony, but in that year it obtained self-governing status and in 1981 became independent. Its government is patterned after the British system, and it has maintained its contact with the United Kingdom. Its Governor General is a Belizean appointed by the Queen of England as her representative.

During recent years, Belize's economy has grown but with a see-saw effect largely because of the fluctuations of the world prices of sugar, its main export. Belize is in the process of diversifying its economy, and the future of the country is favorable as the production of crops other than sugar is increasing and emphasis is given to the tourism industry.

Although the population of Belize is small, it is very diversified with several ethnic groups, languages, and religions. The Creoles with African and European ancestry is the main ethnic group. The next largest is the Mestizos, an Amerindian-European admixture. Other major ethnic groups, are the Garifuna (an African-Carib Indian admixture), three Mayan Indian groups, East Indian and European. Most of the latter are Mennonites, who came to the country because the government had granted them the right to practice their customs, manage their schools, and be exempt from military service.

The majority of the people identify themselves as Catholics, but many protestant groups have established churches in Belize with the Anglicans and Methodists having the largest congregations.

Although the official language is English, the main street language is Creole, and a sizable minority speak Spanish as their primary language. Most of the other ethnic groups have retained their own languages. With so many different languages being spoken, many Belizeans are multi-lingual.

A major feature of the social situation is the large amount of emigration and immigration that is occurring. Most of the emigrants are from the Creole group. Most

are high school graduates, and most go to the United States. The emigration results in a serious brain drain.

The immigrants are from neighboring Central American countries. Because of the violence and the depressed economic conditions in those countries, the immigrants are coming to Belize because it has available large amounts of land that is not being tilled.

The Belizean school system includes pre-primary schools for children up to the age of five; eight years of primary education; and generally four years of secondary education. The higher education that has been available primarily has been in two year, sixth form programs, but recently the University College of Belize was established to provide upper-division university programs.

An historical church-state relationship in education has been maintained. The management of the schools is shared by the Ministry of Education and the religious denominations. The Ministry establishes educational policies, and the churches manage the day-to-day operation of their schools. The government owns and operates only a small minority of the primary schools and half of the secondary schools. In the church and community schools the government pays the salaries of the primary school teachers and 70 percent of the salaries of secondary school teachers. For primary schools, the government agrees to pay half of the maintenance and capital outlay expenses. For secondary schools, a flat monthly grant of BZ \$1500 is provided for maintenance expenses.

With the churches sponsoring schools, the communities and parents tend to be more involved in school activities, and the church-state arrangement makes the Ministry of Education funds go farther. The church-state relationship makes it more difficult to reach a consensus on educational issues and has resulted in a proliferation of small primary schools in some villages.

### Primary Education

In comparison with most lesser developed countries, Belize is outstanding in the educational opportunities it affords its citizens. Schooling is compulsory for all children 5 to 14 years of age, and estimates are that between 73 and 83 percent of the children in that age group are enrolled in primary schools. Approximately two out of every three children who enter primary school are likely to complete the full eight-year program.

The consultants in this study were very impressed with the teachers and principals they saw at work in the many schools that they visited. The schools were orderly, and the children were learning. This was occurring although conditions were less than ideal.

Only 41 percent of the teachers are fully qualified. Teachers may begin to teach after they have finished primary school. By learning on the job and passing tests, they can move up the teaching ladder until they receive their first class certification which entitles them to go to the Belize Teachers' College. This is a slow process so that only a few teachers get to the college, which is turning out only a few more qualified teachers than those who retire each year.

Unlike schools in many other lesser developed countries, the use of textbooks and other learning materials is well established in Belize. Students must purchase their own textbooks; however, and since the textbooks are too costly for many poor families, only a fraction of the students have a full set of the required texts. Each school is allowed to select its own textbooks, which makes for a confused situation. The government has produced some textbooks in pilot projects funded by donor agencies and has sold them at cost but has not been able to sustain this practice.

An issue in relation to the learning materials is that of cultural relevance. While some schools are using Caribbean-based materials or learning materials developed in Belize, a lack of funding has prevented widespread reproduction of these materials. Most of the textbooks are still from England or the United States. The Ministry is well aware of the textbook problems and is trying to find solutions.

The country has enough school buildings to house its students, but the schools in the urban areas are often overcrowded and many buildings are badly in need of upkeep. It has been difficult to maintain and equip the schools suitably. The government does allocate 20 to 24 percent of its budget for education; however, 93 percent of the Ministry's budget is used to pay teachers' salaries.

The Ministry of Education maintains quality control over the schools through the Belize National Selection Examination, which the students take at the end of the eighth grade. This test certifies the completion of primary school, determines which children will enter secondary schools, and which will receive government scholarships. The only grade reported to the student from the examination is the percentile rank. Letter grades on the subtests are reported to the school administrators.

The pedagogic process can be improved by using some of the concepts that have been proved to be effective in pilot projects. English is the language of instruction, but few of the students speak English at home. Some pilot materials in Teaching of English to Speakers of Other Languages (TESOL) have been developed and used but as yet, they have not been reproduced nor used widely. The TESOL methodology would help to get

the students in the beginning grades off to a better start. Since teachers often have to teach several grades at a time, they also need help in developing the special teaching techniques required in multigrade instruction.

### Recommendations:

The following recommendations are for ways in which USAID and other donor agencies can help improve primary education in Belize.

1. Provide: teacher training in a curriculum based on Teaching English to Speakers of Other Languages for the first three grades of primary school, teacher training in multigrade teaching techniques, learning materials for students, resource materials for teachers and capital for school improvements. This package of inputs would be focused on small rural primary schools with predominant non-English-speaking students.

2. Support an in-service program of teacher upgrading conducted by the Belize Teachers' College for all unqualified teachers. The program would be conducted on a decentralized basis through existing and newly established teachers' centers in each of the districts. This program would have the capacity to upgrade all unqualified teachers by the year 1992.

3. Support the establishment of a National Learning Materials Council which would recommend policy on textbooks and other learning materials. The council or board should have representation from the Ministry of Education, the denominational managements, teachers, principals and parents. It is possible that the council would need the services of a technical specialist to help it identify economically and pedagogically feasible options for addressing the shortage of learning materials in the schools.

4. Support the production and dissemination of learning materials already developed and pilot tested through earlier USAID-sponsored efforts including the Primary Education Project and Teaching English to Speakers of Other Languages (TESOL). The target group should be students in Infant I, II and Standard I grades.

5. Support training of primary school principals as instructional leaders and school managers through a USAID participant training program.

6. Support the Primary School Monitoring System and the analysis of the annual Belize National Selection Examination results by providing training for an Officer of the Ministry of Education attached to the division of Primary Education.

7. Support the training of Ministry of Education personnel in the division of

Primary Education along with representatives of the general and local management of denominational schools in school location planning techniques with a focus on issues of amalgamating inefficient rural schools, expanding overcrowded schools, and setting up new schools.

The priority order for these recommendations is given in the body of this study.

### Secondary Education

The traditional and standard Belize secondary schools are academic four-year high schools. Recently, some of these schools have added practical programs as are found in comprehensive high schools. The high school established in the new capital, Belmopan, is called a comprehensive school.

A second type of secondary school is the junior secondary school. There are two of these, both in Belize City. Their programs are designed to be about 60 percent vocational and 40 percent academic. Their entrance requirements are lower than for most of the four-year high schools. The Ministry of Education is contemplating changing them to regular four-year high schools.

Admission to the secondary schools is selective. Only about one-half of the primary school graduates find places in the secondary schools, and only about one-half of those who start the secondary school complete the program. The secondary schools charge tuition so it is estimated that as many students drop out for financial reasons as for academic reasons.

Other secondary school programs are offered by vocational-technical schools. The Belize School of Nursing has a one-year practical nursing and a two-year rural health nurse program for primary school graduates. Two schools offer lower division vocational programs: the Junior School of Agriculture in agriculture and the Vocational Training Centre in vocational-technical areas. The Belize Technical College, in addition to its post-secondary program offers two-year senior secondary level programs for graduates of the junior secondary schools as well as for students who have completed two years at other secondary schools.

There are 26 secondary schools in all, half government schools and half church or community schools. The Ministry does not provide the curricula for the secondary schools, but most of the schools use the Caribbean Examinations Council syllabi in the subjects where Caribbean Examination Council examinations are available. This provides some uniformity among the schools.

### Post-Secondary Education

Nine institutions in Belize offer post-secondary programs. Four of these are four-year high schools, which have added two-year post-secondary programs. Using British terminology, these are called Sixth Form programs. One of these programs, that of St. John's College, a prestigious Jesuit school, has been operating since 1952. The Sixth Form at Belize Technical College was started in 1956. Graduates of both these Sixth Forms who have gone on to finish college abroad have, in general, done well. The other two high schools offering the two-year post-secondary programs have started these only recently.

The other institutions with post-secondary programs are the Belize College of Agriculture, the Belize School of Nursing, The Belize Teachers College and the University College of Belize (UCB). The first two of these offer specialized two-year programs to prepare for the types of occupations that their titles indicate. The Teachers College offers three-year diplomas in primary and secondary education. The University College of Belize was started in 1986 with the assistance of the Ferris State College of Big Rapids, Michigan. It offers upper-division two-year programs so that students can obtain their bachelor's degrees in Belize. Programs are currently limited to a bachelor in education and a B.A. in business.

The Belize College of Arts, Science and Technology was in operation from 1980 to 1986. It was to be an umbrella institution under which some of the institutions discussed above were component parts. The present government abolished the organization, but UCB has continued to offer three-year professional programs for pharmacists and laboratory technicians.

### Vocational-Technical Education

The Government of Belize recognizes the need to make education and training practical and relevant to the development needs of the country, and recent innovations in the educational system have been made with this as an objective. However, the small population of Belize, the relatively small economy, and the scarce revenues with which the government must cope impose limits on what it can successfully accomplish and sustain in vocational-technical education where capital expenditures, tools and equipment, materials and supplies and maintenance produce overhead costs which are considerably higher than the costs of academic training. The need is to make educational programs as practical as possible but to keep costs as low as possible compared to the costs for academic education.

Since the country reached self-governing status in 1964, the country has started a practical agricultural program in 65 rural primary schools, opened the College of Agriculture, the Teachers' College, the School of Nursing, the Junior School of Agriculture, the Vocational Training Centre and the Belmopan Comprehensive School. In addition, denominational secondary schools in the south amalgamated to form two community schools with vocational offerings. During this period, several of the four-year high schools began to offer practical pre-vocational programs, and the two junior secondary schools were organized to devote 60 percent of the curriculum to the vocational-technical area. The Belize Technical College has headed up the vocational-technical program with both two-year secondary and two-year post-secondary vocational preparatory programs. With the exception of the Belize Technical College and the other tertiary institutions' programs, the other offerings have been basically pre-vocational.

The development of the several courses and programs has been quite rapid and episodic, uncoordinated by the Ministry of Education or the church schools. Linkages between levels, courses, and institutions have not developed, nor has the relationship between specialized vocational and general or academic education been precisely defined.

In this study, the principals of the several vocational-technical institutions were interviewed to ascertain their opinion as to the general impact of the vocational-technical education on the lives of their students and their communities.

The graduates of the Technical College are successful in getting jobs, according to the principals, but this is not always the case with the graduates of the other institutions, primarily because the economy is not yet dynamic enough to create sufficient jobs, particularly outside of Belize City. The training that the students received did not have an appreciable effect on their earnings. As yet, most of the institutions have not reached out to private industry and their community for advice and support.

The establishment of the vocational-technical institutions has substantially increased education and training opportunities, but unfortunately they are mainly in Belize City and the larger towns so that many students do not have access to these opportunities.

The concept of competency-based vocational educational programs has been introduced in Belize, but only a few of the principals or teachers are aware of the concepts or are making use of the methodology. Since good competency-based instructional modules for several of the occupations being taught are available in Belize, the use of this important concept can be expected to spread.

Most of the vocational-technical programs need better facilities and more equipment. Most of the institutions have solved the problem of obtaining supplies by using funding efforts of their own to pay for them.

### Recommendations

#### **Scenario 1: Most ambitious plan requiring most resources:**

1. Support the development of a planning unit within the Ministry of Education so that the Ministry can establish a sound educational strategy which defines the relationship between academic education and vocational-technical education and makes possible realistic decisions on the allocation of resources. The first task of the planning unit should be to develop a national educational plan. Until such a plan is established, any vocational educational plan should be tentative until it can become an integral part of the national education plan.
2. Support the development of an on-going in-service training system for vocational-technical education teachers and administrators. Such a system should operate through the Belize Teachers' College and the Vocational-Technical Training Unit of the Ministry of Education, and should contain the following elements: self-directed learning, the use of master teachers as role models and guides, demonstration sites, as well as in-service workshops.
3. Support a gradual development and institutionalization of pre-vocational training in primary schools using the Relevant Education for Agriculture and Productivity (REAP) Program as a model.
4. Support the Ministry of Education's Vocational-Technical Training Unit in its efforts to develop linkages among the levels of vocational-technical education and to establish a competency based program.
5. Help the Vocational-Technical Training Unit of the Ministry of Education rationalize vocational-technical student learning materials through the adoption of an approved materials list. This involves helping the unit to obtain samples of available vocational-technical instructional materials.

6. Help the Vocational-Technical Training Unit to develop linkages between vocational-technical education programs and business/industry.
7. Support the establishment of supplementary (on-the-job, upgrading) vocational education programs at appropriate schools or centers.

**Senario 2: Moderate plan in ambition and resource requirement:**

Scenario 2 includes all the above points with the exception of points six and seven.

**Senario 3: Plan requiring least resources:**

Scenario 3 includes just the first four points of scenario 1.

**Agricultural Education**

Agricultural expansion and development, a high priority in the national economic plan, depends on the development of human resources involved in the agricultural sector. The two lead organizations in agriculture are the Belize College of Agriculture for formal education and the Agricultural Extension Service for nonformal education, but agricultural education programs are found in all three educational levels.

The Relevant Education for Agricultural Production (REAP) Programs was started in 1976 in rural primary schools on a pilot basis. An effective program, it has now expanded to 65 schools. The philosophy of the program is to integrate such traditional primary school subjects as language arts and mathematics with the rural environment so that each subject taught bears directly upon the real world in which the children live and the problems they face there. Each of the schools has a garden which serves as a teaching tool and an outdoor laboratory. Evaluations of the programs show that the students gain rural-oriented skills and knowledge that they would not have gained in traditional schools and that they do at least as well in the traditional subject areas as do the primary school students not in the program.

At the secondary level, five of the four-year high schools are starting agricultural programs, and four years ago the Junior Agricultural School, a special two-year lower-secondary school, was established to teach vocational agriculture. This school is an outgrowth of the REAP primary school program. Its aim is to encourage children to stay on the land and take up farming. Many of its graduates go on to the Orange Walk

Technical High School, but some are working on their family farms. The institution is too new to ascertain how successful it will be in producing future farmers.

The Belize College of Agriculture is the only post-secondary agricultural school. It offers a two-year college diploma course which is divided between field work and academic courses. The students live on campus, and the school has a capacity of 68 students. The students pay a fee of BZ\$30 per month, but some limited scholarships are available. The school has many more applicants than it can accept.

Of its 200 graduates, about 80 percent are in agricultural occupations, with about one-half of those working in the Ministry of Agriculture. Ten percent are taking advanced education abroad, and a few are on farms.

The facilities of the college are adequate for its present student body and the facilities would also be excellent for workshops and seminars. If the institution had a hostel or additional dormitory facilities, it would be an excellent facility in which the Extension Service could teach agricultural innovations to farmers.

The Agricultural Extension Service provides the farmers with agricultural information and skills. It is supposed to have an Extension Supervisor of Education in each district who is to be supported by Extension Officers in each of 32 zones. As yet, all the positions have not been filled.

A review of the Extension Service in 1987 recommended that it concentrate its resources in priority areas for greater impact, strengthen its linkages and processes to reach farmers, strengthen the linkages with research, improve its processes for planning and implementation and make use of opportunities and options presented outside of the Extension Service.

Farm organizations, such as the Cane Farmers Association, and private voluntary organizations, are involved in helping farmers. At least three nonformal education institutions or programs offer agricultural programs: the 4-H Club, the Youth Development Centre and the Gaining Relevant Orientation to Work, Training and Help (GROWTH) Program. The 4-H Club has courses and projects on raising small animals. The Youth Development Centre offers a one-year rural education program. GROWTH is an outgrowth of the Relevant Education for Agriculture Production (REAP) programs. Growth has as its objective attracting young people to take up careers in agriculture. It offers a training course and guaranteed credit so that young people can have the knowledge and resources to undertake successful agricultural or rural projects.

An example of a private voluntary organization involved in helping to train farmers is the Belize Enterprise for Sustained Technology (BEST). It provides assistance and advice to small farmer groups, primarily cooperatives, in management as well as in agricultural techniques.

Agricultural education and training activities also include USAID/Government of Belize agricultural projects, all of which have training components requisite to agricultural and rural development.

### Recommendations

The following recommendations are ways in which USAID or other donor agencies may improve agricultural education and training in Belize. These are all modest proposals not requiring either large external funding or large increases in the operating budget of the Government of Belize.

1. Since the REAP program has been so successful, it should continue to expand. The Peace Corps has been instrumental in the success of the program, therefore, it is recommended that USAID support the Peace Corps Volunteers as necessary to ensure their continued availability in the expansion of the program.
2. Because the Belize Junior School of Agriculture has brought a vocational agricultural education program to rural children who otherwise might not have the opportunity to continue their schooling, it is recommended that consideration be given to replicating the institution in at least one other deprived rural area to test the possibility of this as a model for expanding secondary education to rural areas.
3. The Government of Belize will need help in its program to develop agricultural education programs in five four-year high schools; therefore, it is recommended that assistance be given to help provide the human and material resources deemed essential for a pilot school farm and vocational agriculture program at one of the selected high schools.
4. The facilities of the Belize College of Agriculture are underutilized and could be used by the Extension Service to introduce agricultural innovations to the farmers. It is recommended that dormitories be built and a program developed so that the Extension Service can provide short workshops to farmers to upgrade their knowledge, skills and production.
5. Although the USAID/Belize-Ministry of Agriculture projects now have training components, it is recommended that even greater emphasis be given to training in new projects.

## Management Training

Management capabilities are as important as technical skills in making a business or government department operate effectively. The capabilities are vitally important for national development since they can be so helpful in mobilizing the energies of individual groups throughout society. This study was to ascertain the status of management training now in Belize and the future possibilities for upgrading such training.

## Public Sector Management Training

Until recently, management training in Belize has been provided by sending managers abroad for training. In addition to being costly, the training was not very relevant, and also to be effective, the person trained would have to be able to effect changes in his/her group or institution. At present, management training opportunities, which may be more useful, are available locally through the Belize Institute of Management, the University College of Belize and other training institutions.

Management training is of particular importance in the public sector in Belize because public servants vary greatly in background. Some senior-level officials have only a high school education and limited, if any, previous management experience. A USAID-Government of Belize Project, Training for Employment and Productivity (TEP), has provided management training for personnel in the government as well as in the private sector. Some of the training has been through the Belize Institute of Management; other training has been conducted through special courses coordinated by the training advisor provided under the project; short-term training has also been provided abroad.

The main issue concerning the public sector management training is its cost. The fees of the Institute of Management are high but would have to be even higher to cover the Institute's actual expenses without AID support. Management training, at least for the public sector, will continue to need subsidies.

## Small and Micro-Enterprise Development

A large majority of Belizeans in the private sector are involved in small or micro-enterprises. Lack of management skills in these entrepreneurs is an obstacle to increased profits and business expansion. The Belize Institute of Management has offered courses around the country for these entrepreneurs with mixed results, and it is

still trying to find appropriate times, places, curriculum and fee structure to serve these managers.

The National Development Foundation of Belize (NDF/B) has been providing loans, technical assistance, and training to small businesses since 1983. It provides training to small firms which are not loan clients and also encourages its clients to bring others with them when they receive their training. In addition to the USAID project with NDF/B the plans in the Training for Employment (TEP) project are to establish a BZ \$400,000 revolving fund to help management training.

The Belize Enterprise for Sustained Technology (BEST), a local private voluntary organization with a USAID operational program grant, provides advice and training for cooperatives and other groups of small farmers.

The main issue in small business development is how the various organizations which provide management and business training can work together and avoid duplication of efforts.

### Middle Level Management

The biggest gap in qualified managers in Belize appears to be at the middle level: individuals who are to become department heads, supervisors, and assistants to the top manager. Several institutions have programs to train managers for this level. The Belize Institute of Management is conducting a range of in-service programs for both public and private sector middle-level managers. The Sixth Forms offer a two-year post-secondary business administration program. But business leaders in Belize have not developed a high level of confidence in the capabilities of academic institutions to produce leaders who can strengthen business operations. Presently, in-service, on-the-job training is regarded in Belize as the more effective way to train for middle-level management positions.

### Tourism Training

Expansion of the tourism industry is a goal of the Government of Belize, but if the industry is to expand and be strengthened, it will require more individuals with management and technical skills. To date, training for the industry has been limited, but the Belize Tourism Industry Association (BTIA) is planning to conduct a six-week program for tour guides using the services of the Belize Institute of Management. An issue is how organizations should share in the tourism training. The Belize Tourism Industry

Association does not have a full staff and has not qualified for USAID funding directly, so a feasible system appears to be for the association to do much of its own training but to turn to the Belize Institute of Management when its services are appropriate and cost effective.

#### Development of the Belize Institute of Management as a Sustainable Institution

A concept of the USAID Training for Employment and Productivity (TEP) Project is that project funds will help the Belize Institute of Management to get re-established and to develop a good enough reputation that not only will governmental and private entities come to them for training programs, but they will also be willing to pay the fees that the Institute will need to charge to be self-sufficient. The experience to date is that the Institute does attract clients and has a good reputation, but its clients are not able to pay the higher fees that the Institute would need to charge if it were not subsidized.

As the director of the Institute and the training advisor supplied by the USAID project are conducting much of the training themselves, they are not able to devote their energies to developing strategies for institutionalizing the Institute's activities. While the cushion of USAID funding exists, it is important to develop more part-time and full-time staff members so that the director and USAID advisor can address long-term strategic concerns.

The Institute may run out of its traditional clients in the next few years so it should become more involved in training for small and micro enterprises.

#### Conclusions Regarding the Belize Institute of Management

The USAID Training for Employment and Productivity Project, including the strengthening of the Belize Institute of Management, is based on several hypotheses and assumptions. This study examined the validity of these. The institutions and managers of Belize have responded to the training opportunities as was anticipated, but it is too early to assess how the training has affected development. It does not appear that the Belize Institute of Management can continue to exist without some subsidization.

#### Recommendations

The overall long-term USAID goal in the area of management should be to help make possible in Belize the best and most appropriate training alternatives available to

both the public and private sectors on an ongoing basis and not dependent solely on USAID support. To accomplish this, USAID should focus on institutionalizing the management training function and encouraging the participation and institutional development of all the Belizean institutions which have the potential for effectively contributing to the training function. The Belize Institute of Management can provide support, training expertise and linkages through its client groups. It appears to be a mistake to ask the Institute to do skills training that is not related to the management function. The National Development Foundation of Belize should be supported in expanding its training to an even wider range of micro-enterprises. The Belize Tourism Industry Association should be supported in its efforts to expand training activities for its members. When appropriate, the association should use the Institute of Management's facilities for the training. The association might also try an apprenticeship-type training mechanism.

The pressure to become self-sufficient should be taken off the Belize Institute of Management so that its leaders can develop a long-term strategy for the Institute. It needs to secure other sources of support, more clients to produce more revenue but also other external donors. The Institute also will need to plan its strategy considering the potential roles of other training organizations, local, regional and international.

Some future activities that the Institute should consider are: more focus on the development of Belizean case studies to be used by the Institute and other management training institutions; a comprehensive in-service program for developing middle managers - something between a single workshop and a degree program; a training program for international management; a more comprehensive trainer-of-trainers program; and a training program in project management for USAID or other donor recipients.

Since management training is so important in the development and success of projects, all USAID projects should include a management training component.

The important points stressed throughout this study are to develop the capacity in Belize to do management training effectively and to be sure that such training will be ongoing. In terms of the Training for Employment and Productivity (TEP) project, now is a good time to go back and reexamine the hypotheses and assumptions and to use the experience in order to make course corrections. To do this USAID should organize a seminar with the various institutions that provide training to examine what has happened, what is happening and what the best way is to institutionalize the management training function.

## Meeting Manpower Requirements

In order that the various levels in the formal education system and nonformal training activities be structured or improved so as to prepare youth for productive adulthood, strengthen skills of employed adults, reduce unemployment, and support the economic growth strategies of the Government of Belize, the following recommendations are made. These recommendations are made with a view towards furthering the goals of the Belize National Educational Policy.

The basic problem of education in Belize at all levels is the need to improve the quality of education and to make education more relevant to development needs, and top priority should be given to upgrading the quality of primary schools, particularly the first three grades. Several experimental studies have produced effective teaching/learning materials and methodologies which will serve to meet pressing problems such as how to teach students whose first language is not English and how teachers can manage multigrade classes. The materials and methods need to be put into widespread use. To do this and to improve learning in the primary schools, a package of inputs including a better curriculum supported by pedagogically-sound learning materials, teacher training and modified classroom facilities should be provided.

A second recommendation is to give even greater emphasis to teaching attitudes, to help students appreciate the needs of the country and how the students can best contribute to its progress. Since the country has so much unexploited arable land, future progress will depend largely on agriculture, and students in the rural area need to understand and appreciate how agricultural occupations which are well executed can be beneficial both to themselves and to their country. This is the main thrust of the REAP and GROWTH programs, and both of the programs need to be strengthened, and expanded.

Vocational-technical education is a third priority, but since it is more expensive than general education, the programs need to be very carefully selected to meet the more pressing manpower needs and planned so as to maximize the effectiveness of the resources allotted. Because of the primary importance of agriculture, vocational agricultural education should be given first priority. The importance of REAP and GROWTH as pre-vocational education has already been noted. It is very important to improve agricultural productivity by making better use of the resources of the Belize College of Agriculture, the Central Farm and the Agricultural Extension Service. The college and farm have access to improved varieties of seeds and livestock and better agricultural methods, but the need is to find a way to communicate these to the

farmers. A solution is for the Extension Service to present workshops for the farmers using the facilities of the college and farm. To do this the college will need additional dormitory facilities for the participants. It is essential, of course, that government policies make it possible for agriculture to thrive.

The immediate need in other vocational-technical training institutions is to introduce Competency-Based Vocational-Technical Education. This is a methodology in which the instruction is keyed to the specific job requirements and thus results in maximizing the instructional effort and the student's proficiency. Curricula for Competency-Based Vocational-Technical Education are now available in Belize for a few occupations, but programs can be made available for all the vocational-technical courses now being offered. In-service teacher training will be necessary in order for the instructors to use this system effectively.

In the management area, the Training for Employment and Productivity (TEP) project has provided effective management training in both the public and private sectors. A need now is to examine the assumptions and hypothesis on which the project is based to ascertain the extent of their validity and to make mid-course corrections that the evaluation reveals. AID should step back now to search for ways to institutionalize the management training function and perhaps to involve other providers in the process of making available management and related training in Belize. An apparent need is to give more emphasis to management training for small and micro-businesses.

## I. INTRODUCTION

Belize is a country rich in land but thinly populated and poor in infrastructure. Almost half of its territory of 8,866 square miles is arable, and yet food is a major import for a sparse population of only some 190,000. As a main center of early Mayan civilization dating back to 2500 B.C., it is estimated to have had a population of from 400,000 to one million inhabitants 500 years ago, and was most likely a major food producer for the whole area inhabited by the Mayas.

During much of the colonial period, the economy was based on the exploitation of the forests which contained some of the finest mahogany and other hardwoods of the world. These woods were used in the manufacture of exquisite furniture with such famous designers as Chippendale and Duncan Phyfe. Agriculture however was largely neglected, and the few settlers brought into the colony formed small settlements mostly along the coast. Even today despite the agricultural potential, the population is about evenly divided between the urban and rural sectors, although unemployment is high in the larger towns.

Efforts to make the most effective uses of the agricultural resources have been constrained by the lack of sufficient roads, good deep-water port facilities, and other positive marketing features. It would also appear that the educational system has not provided the appropriate and needed assistance.

### A. Economic Background

Since Belize gained its self-governing status in 1964, its economy has shown spurts of significant positive growth, but it has been buffeted by world situations over which it has had no control: oil prices; the quota system applied to some of its exports by its major trading partners, the United States and the United Kingdom; and the valuation of the currency of those two countries. The economy of Belize is highly dependent on foreign trade, and its exports are heavily dependent on one crop: sugar.

From 1964 to 1981, when Belize gained its independence, the growth rate of its Gross Domestic Product (GDP) averaged 5 percent annually, although cyclical fluctuations occurred. At the end of the period, progress slowed as a result of the world-wide recession, a drastic drop in sugar prices, and other adverse economic factors, resulting in a negative growth rate in 1982. By 1984 GDP had jumped back up again by

4.5 percent only to grow at a much lower rate in 1985-86. Once again the economy made a great comeback and a recent report showed growth of over 5 percent in 1987. Such a see-saw effect makes planning and the management of the economy very difficult.

The recent spurt was caused largely by a sizable increase of non-sugar exports: citrus products and bananas. Sugar prices were up, and this was a significant factor since sugar still is the largest export commodity. The growth of the garment industry was also important.

Another reason for the increase in exports was the lowered valuation of the Belizean dollar, which is pegged to the U.S. dollar at BZ\$ 2 to US\$ 1. When the U.S. dollar was high and resulted in a problem for the U.S. exports, Belize had a similar problem. Now that the U.S. dollar value is much lower, Belizean exports are also more competitive on the world market.

The recent economic growth in Belize has come in several sectors. Agriculture, the sector on which the country depends most heavily, grew in real terms by 10.5 percent; trade and tourism by 14 percent; manufacturing by 6.3 percent; and construction by 32 percent. These results are encouraging, but a continuation of the progress depends heavily on favorable quotas for markets in sugar, bananas and, to an extent, garments. Belize needs to continue its efforts to diversify, to produce more of those commodities not affected by quotas.

The Government played an important role in the economy as it followed policies to encourage investment in the private sector while it maintained an austerity program for itself. In 1985 and 1986 the International Monetary Fund helped it to stabilize its financial situation, and the external donors have helped it with the balance-of-payment problem and helped undertake crucial infrastructure projects. From 1983-1987 the U.S. Government provided 17.6 million dollars in an Economic Support Fund. Other donors, principally the World Bank, the Caribbean Development Bank and the United Kingdom have contributed an average of three to four million dollars per year.

Despite the contributions from donors, poor infrastructure is a major constraint to economic development. Much land for agriculture and for the exploitation of forests is inaccessible because of the lack of roads. Inadequate port facilities limit external marketing. Energy costs are high and a constraint since the generation of electricity depends on foreign oil. Funds from external donors will continue to ameliorate these constraints, but much time and effort will be required to overcome them.

Another major constraint to growth in the future relates to available human resources. Although the country's progress will continue to depend to a great extent on agriculture, a negative attitude toward agricultural occupations prevails among many Belizeans. It does not seem feasible to expect to lure urban individuals back to a rural life, although a few may become interested in mechanized farming, and agricultural processing will provide jobs for some urban dwellers. It is feasible, however, to use educational means to help make rural children and youth aware of the potential of agriculture, and to provide the training, land, and credit so they can become productive farmers. Much valuable arable land is still untilled, at least in part as a result of the lack of manpower to work the land. It must be recognized, however, that soil, water, disease and weed management is difficult and the clearing of the heavy tropical vegetation on much of the land will be a costly process.

Although the estimated percentage of literacy is as high as 92 percent, the type of literacy required to function effectively in a modern competitive society may be only a fraction of that percentage. School enrollments are higher than in many developing countries, but only some 59 percent graduate and less than half of the graduates go on to secondary schools. Much of the education that children do receive is not highly relevant to a country so dependent on an agricultural economy.

The labor force, in the latest year that statistics are available (1982), consisted of 47,325 individuals out of the total estimated population of 160,000. Of these, 31,965 were men and 15,360 women. The employment by sector was: Agriculture, Forestry and Fishing - 43 percent; Services - 20 percent; Commerce - 14 percent; Government - 13 percent, Manufacture - 10 percent. Nine percent of the men and 24 percent of the women were unemployed or 14 percent of both sexes. The situation may have shifted slightly, but these statistics are still indicative of the fact that almost half of those employed are in agriculture or the private sector.

Land tenure in Belize is of three types: privately owned (37 percent), forest reserves (28 percent), and national lands (35 percent). Of the latter, about a third is leased to private interests. Two percent of the private owners have 85 percent of that land, and the bulk of the other owners have .5 acres or less. The land rented by the Government is, for the most part, rented to small farmers engaged in slash-and-burn type farming. A large number of the farmers, perhaps six to eight thousand families, are in this group. A 1960 land reform law, allowing the Government to buy, sell and title land, created some of these small holdings. Since the country has so much arable land available, the system of land tenure should not be a constraint to economic growth.

The future of the Belizean economy appears to be favorable. The Government's five year macro-economic plan (1984 - 1989) recognizes the need to diversify its agriculture and to expand products and sectors, such as tourism, which are not affected by quotas. External funds and the budget for capital expenditures may create a construction boom. Citrus and banana production continues to increase. Sugar production should receive a boost as some of the sugar is converted to ethanol. Cacao production should help as it comes on line.

With its marvelous environmental resources, the second longest barrier reef in the world, the extensive Mayan archaeological sites and the country's natural beauty, tourism should expand markedly. Belize is now served by four international airlines providing non-stop services between here and major population centers of the United States. More hotel rooms and other tourist facilities are being constructed. Careful planning is necessary, however, as the Government gives emphasis to this sector, and the facilities receive the additional resources that are required so that tourism is diversified and does not place too great an environmental strain on the fragile ecological system in the cays.

The Government has taken initiatives to lure foreign investors, making them eligible for the same development concessions received by local investors. The country offers attractive opportunities for investors in agriculture, tourism, and garment and assembly operations. Other positive factors for investors are the proximity to the U.S., the use of English language, the abundance of natural resources and the favorable climate. The number of individuals from abroad coming to investigate investment possibilities is reported to have had a four-fold increase this past year.

The progress will depend heavily on improvement in the infrastructure and especially on the availability of sufficient capable human resources. To ensure that there will be sufficient qualified manpower, the quality of education will need to improve and the curriculum will need to be more relevant to economic development.

## **B. The Social Setting**

Although Belize has a small and sparsely-settled population (1988 estimates range from 170,000 to 190,000 people and one of the lowest population densities in the world), it has the most diverse population in Central America with a wide variety of ethnic groups, languages, and religions. The largest ethnic group, the Creoles, make up 40 percent of the population. Their ancestry is largely African and their language is an English-based Creole. About three-fourths of the inhabitants of Belize City are Creoles as are over half of the citizens of the capital, Belmopan.

The next most populous group, approximately one-third of the population, is the Mestizos, an Amerindian-European mixture, whose first language is Spanish. Although scattered throughout the six districts of Belize, large concentrations of Mestizos are found in the north and in west Belize near the twin towns of Santa Elena and San Ignacio and also in Belize City.

Smaller ethnic groups are the Garífuna, an African-Carib Indian mixture originally from the island of St. Vincent; three groups of Mayan descent (Kekchí, Mopan and Yucatecan) with three distinctive Mayan languages; European Mennonites, who speak German and who immigrated from Germany via Canada, the U.S., and Mexico; East Indians, and a sprinkling of other Europeans and Americans and Chinese.

Most East Indians came generations ago as indentured servants, and have their own villages. Over the years, they have lost their original languages. A smaller group of East Indians have come recently and mostly work as merchants in the larger towns.

The Mennonites, on coming to the country, received concessions from the Government guaranteeing them freedom to practice their religion, to use their language, to govern their own schools and to be exempt from military service. They live in tightly knit communities in the Cayo and Orange Walk districts. They have made a contribution to the country with their thriving, diversified farms and their appropriate technology skills. They receive support from Mennonite communities in other parts of the world.

Mayan Indians had already populated Belize when the country began to be settled by the English involved in the exploitation of logwood for dyes and later the forests for their fine hardwood. Through the years the number of Mayans have been supplemented by immigrants from Guatemala (Kekchí and Mopan) and by Yucatecans from Mexico.

The Garífunas have maintained relatively isolated communities since they migrated to Belize generations ago from the coastal area of Honduras to the Stann Creek district of Belize. They have also maintained their distinctive culture.

In addition to the wide variety of ethnic groups and languages, Belizeans also practice several religions; however two-thirds identify themselves as Roman Catholics. The two other largest religious groups are Anglicans (12 percent) and Methodists (6 percent). Other religious groups in addition to the Mennonites are Seventh Day Adventists, Pentecostal, Nazarene, Jehovah's Witness, and Baptist.

An important factor in Belizean society is the emigration and immigration that is occurring. These processes have been going on in Belize for generations, but recently the migrations are of larger magnitude and the motivations for them are different to an

extent, particularly in regard to the immigration. The emigration involves a larger percentage of Creoles with a large proportion of them from Belize City. Most go to the United States where the estimated number of Belizeans is from 30,000 to 50,000. The significance of this is clear when compared to the estimated population in Belize of under 190,000. Most of these emigrants are high school graduates, and apparently they adjust well to life in the U.S. because they send back to their families a significant amount of U.S. dollars, which is a factor in the country's attempt to maintain a positive balance-of-payments. The emigration represents a serious brain drain. One high school principal estimated that 60 percent of his high school graduates emigrated.

Even with the emigration, the population is growing at about a 2 percent rate. In addition to the factor of a high birth rate, the population increase results from immigration into Belize from its neighboring Central American countries. Some immigrants come because they are fleeing to escape the violence in El Salvador, Guatemala and Nicaragua, but a larger number, perhaps, are coming for economic reasons; they believe that opportunities are better here than in their homeland. The poverty is not nearly as extreme here, and the arable land is plentiful, and much of it is not being used. Belize can use more agricultural workers, and for some years it has recruited and brought in from neighboring countries as many as 1500 seasonal agricultural workers to cut sugar cane and to harvest the citrus crop. Like the U.S., however, Belize would like to be able to control its borders, but with parts of Central America having a population explosion and with the violence and depressed economic conditions there, immigration will be very difficult, if not impossible, to control.

The estimated number of immigrants, most of whom are illegal aliens, is at least 30,000. This number in this sparsely populated country puts a severe strain on the social services, and it is a major problem for Belize to absorb such a large fraction of their inhabitants who come with very distinct cultural patterns.

A major feature of the total population is that the young people make up such a large proportion. About 45 percent of the population is under 15 years of age. This presents a challenge to provide schooling and other social services to the children who are taking more than they contribute to the economy. Another significant feature is that only 28 percent are in the age group between 15-30 years of age, which indicates that a sizeable number of the emigrants are from an age group which should be making a strong contribution to the economy.

The urban-rural split in the population is about 50-50 and yet the rural area provides the greater amount of employment opportunities. Although the Government

puts the greatest emphasis on agriculture for future development, it must concern itself also with employment opportunities in the urban area where unemployment is highest.

As a country with a small population, Belize has been influenced culturally to a large extent by other societies. As an ex-colony it was under the influence of the United Kingdom. This influence can be seen in the structure of the school system and the use of English as the official language. The influence continues to an extent since the United Kingdom maintains a sizeable security force here to allay any threat of foreign intervention. The greatest influence, however, now comes from the United States. With such a large contingency of Belizeans in the U.S., many people have relatives there, and trips back and forth and cultural contacts are numerous. The overwhelming proportion of the tourists also are from the United States. As in countries worldwide, the influences of U.S. motion pictures and other communications media is pervasive, and, of course, this is particularly true in Belize since English is the official language.

When they replace textbooks, school districts in the United States either have to destroy them or ship them to a developing country. Since the districts would rather not destroy the books, and since this English-speaking country is so near the U.S., some U.S. philanthropic organizations ship quantities of used textbooks to Belize. The new textbooks that the schools want the parents to purchase are also largely from either the United Kingdom or the U.S., and books from the U.S. are favored.

To add to all the other factors, recently Belize has introduced television, and the two stations' programs are mostly from the U.S.; the Chicago Cubs and the Los Angeles Lakers are as well-known here by many Belizeans as they are in the U.S.! Cable television with a multitude of U.S. stations is also now available.

## C. Overview of the Educational System

### i. The Goals and Objectives of the Government of Belize in Education

The Ministry recognizes the need for an educated and skilled work force, and that education at all levels has contributions which are required for national development. The Ministry hopes to organize a national stimulation program for pre-school children, and in primary education it wants to improve the quality of the program as well as to provide the full eight years to all children between 5 and 14 years of age, and likewise in secondary education to expand and improve the quality of the schools. In the areas of vocational-technical education, the Ministry wants to establish an appropriate system of practical education coordinated with general education and supplying the economic

sector with skilled manpower. In higher education, in addition to supporting the two-year college programs now being offered by several institutions, it plans to further the development of the University College of Belize so that students can be educated here at least to the bachelor's level.

The basic structure of the Belizean educational system is patterned in large part on the British system inherited from the colonial period. Recent changes have been to try to make the instruction more relevant to the needs of Belizean youth and to the development needs of the country. As one phase of this, some of the secondary education curricula are based on those being developed in English-speaking Caribbean countries.

The school system consists of pre-primary schools for children up to five years of age; primary schools with eight grades; secondary schools which if complete will have four grades; and post-secondary schools.

#### Pre-Primary Schools

The pre-primary schools until recently have all been private schools, but the Government recognizes the importance of this early childhood education and has started a few pre-primary schools. All of the pre-primary schools charge tuition.

#### Primary Schools

The eight grades of primary education are divided into three levels. The Infant Level has Infant Grades I and II and Standard I. The Junior Level contains Standards II, III and IV, while the Senior Level has Standards V and VI. Children may start primary school as early as four and three-fourths years so with normal progression may graduate at the age of 13. Education is compulsory between the ages of 6 to 14, and children have the right to attend school until age 16 if they have not graduated from primary school.

The curriculum is guided by materials issued by the Ministry of Education in the areas of Language Arts (English), Mathematics, Social Studies and Science, but the teachers and principals have considerable latitude in fleshing out the curriculum guides. To make the schools more relevant and innovative, the Ministry offers a special program, the Relevant Education for Agriculture and Production Program. It is now being used as a supplement to the regular curriculum in 65 schools.

One section of this study will deal with the Primary Schools in more detail.

## Secondary Schools

The traditional and standard Belize secondary school is the academic four-year high school. Recently, some of these schools have added practical programs as are found in comprehensive high schools. The high school established in Belmopan, the capital, is even called a comprehensive school.

A second type of secondary school is the junior secondary school, of which there are two, both in Belize City. Their programs are designed to be about 60 percent vocational and 40 percent academic. Their requirements for entrance are lower than those of the four-year schools. At this time the Ministry of Education is contemplating changing these to four-year high schools.

The other secondary programs are offered by vocational-technical schools. The Belize School of Nursing has a one-year practical nursing program and a two-year mid-wife program for primary school graduates who have also completed two years of high school. Two schools offer two-year lower secondary school vocational programs: the Junior School of Agriculture in agriculture, and the Vocational Technical Center in vocational-technical areas. The Belize Technical College, in addition to its post-secondary program, offers two-year senior secondary level programs for graduates of the junior secondary schools.

## Tertiary Level Programs

Most of the post-secondary schools have been established by secondary schools. St. John's College, a prestigious Jesuit high school, began in 1952 to offer a Sixth Form Program, the first two years of higher education. Recently Sixth Form Programs have also been started by two other four-year high schools, Corozal Community College and the Stann Creek Ecumenical College.

Four institutions offer special post-secondary programs: the Belize Technical College, the Belize College of Agriculture, the Belize School of Nursing and the Belize Teachers' College. The Technical College offers two-year programs in the vocational-technical fields and also an academic arts and sciences program. The College of Agriculture has a two-year post-secondary vocational agriculture program. The Belize School of Nursing trains professional nurses in a three-year post-secondary nursing program.

The programs to train teachers are at the Belize Teachers' College. Primary school graduates may become entrants to the college through a type of on-the-job

apprenticeship program. As the non-certificated teacher, who must be a primary school graduate, starts to teach, he is to study as well as learn on the job so that he can pass the Second Class Teachers Examination. After more teaching experience and learning, he can take the First Class Teachers Examination. If he passes this he is eligible to enter the Teachers' College. High school graduates with passing marks on specified examinations may enter the college without teaching experience, and students with some college credits may be able to enter with advanced standing. The Teachers' College program is for three years leading to a Diploma in Teacher Education and a qualified teacher certificate. This was designed for primary teachers, and until recently no special program existed to train secondary teachers. This year the college has started such a program but was able to enroll only 12 students.

Up until 1986, no institution here offered a full four-year college program, but in that year the University College of Belize began to offer upper-division programs with the assistance of the Ferris State College of Big Rapids, Michigan. Students who have completed the first two years in one of the local colleges may now finish their college program here in some areas. The programs, until the Belize College receives proper recognition, will award degrees from the Michigan college. Future plans are eventually to offer post-graduate courses through this special arrangement starting with a Master's Degree in Education.

Another post-secondary institution was the Belize College of Arts, Science and Technology. It was to be an umbrella institution under which some of the other tertiary institutions would be component parts. The present Government abolished the institution but a remnant of the institution still offers three-year professional programs for pharmacists and laboratory technicians.

## 2. The Administration and Management of the Schools

All of the schools (except the Belize College of Agriculture which is financed by and under the control of the Ministry of Agriculture and the Belize School of Nursing under the Ministry of Health) are under the Ministry of Education. Under a unique system in Belize, however, the schools which are established by the churches are managed by those churches, and 92 percent of the primary students are in such church schools. The Government aids the primary schools by paying the teachers' salaries and 50 percent of the maintenance costs and capital outlay. About one-half of the secondary schools are also church schools. At this level, the government-aided schools receive 70 percent of the teachers' salaries and 50 percent of the maintenance costs and capital

outlay. The Ministry of Education establishes curricular and other guidelines for the schools.

Each of the three major denominations, the Roman Catholic, Anglican, and Methodist, have a General Manager to oversee their church's schools. The Roman Catholic Church, since it has about two-thirds of the primary schools, also has officers assigned as District Managers. Often, these individuals have additional church responsibilities, and few have education as their sole concern. Since the Roman Catholics make up such a large percentage of the population, their schools are usually limited to children of their faith. The other church schools aided by the Government will, on the other hand, usually have a minority of children of their denominations. Church schools, which will not accept children who are not of their religion, normally are not given as much financial aid as the regular government-aided schools and are referred to as government-assisted schools. This church-state relationship has the obvious advantage of making the state's funds go further, but it has also resulted in fragmentation and some proliferation of schools. Although the Ministry reserves the right to approve actions by the church managers, the Ministry can exercise limited control over how the church schools actually operate.

The Ministry itself is small. Under the Minister is a Permanent Secretary to handle daily administrative matters. Instructional concerns are the responsibility of a Chief Education Officer. A Principal Education Officer is in charge of Primary Education and another Principal Education Officer, Secondary Education. Under these senior officers are 12 Education Officers. Belize District has two District Education Officers to supervise the schools. The other five districts each have one District Education Officer (currently the Toledo Officer is in training abroad). Each of the following offices is headed by an Education Officer: Rural Education (REAP), Pre-Schools, the Curriculum Development Unit, and the Examinations Unit.

### **3. Curricula and Instruction**

The Curriculum Development Unit prepares curriculum guides for the subjects to be taught in the primary schools. The guides outline the general areas together with specific topics, and the denominational managers, principals and teachers exercise a wide latitude in the interpretation and implementation of the guidelines. This allows the local schools to adapt the curriculum to fit the characteristics of the community and the socio-economic background of the students, but it results also in a "patch-quilt" pattern of primary school instruction with great variance in the schools as to what is offered to

the students and what attainment is expected of them at each grade level. Schools even of the same denomination and in the same district may have students in the same grades studying subjects on different levels.

The instructional materials used in the schools are what happens to be available or what the school selects for the parent to buy. The instructional materials vary from school-to-school, and since textbooks are expensive, many of the children are not able to get them. The favored texts appear to be from the U.S., but they also tend to be the most expensive. One of the chief complaints of the parents is the price of books since they are required to procure them. To have books which may be more relevant, some textbooks are from Caribbean sources, and a program in Benque Viejo has produced mathematics and language books. The Ministry also has a project which is to produce textbooks with the concept that these books will be more relevant and less expensive. Thousands of used U.S. textbooks have been donated to the schools. These may or may not be either useful or used.

As in most school situations, the teachers here tend to teach as they were taught. Much of the instruction is provided by the teacher writing on the chalk-board with the children copying the material in notebooks and learning by rote memorization.

The Ministry of Education does not set the curriculum for the secondary schools. Most of the schools base their instruction on curricula developed by the Caribbean Examination Council since many of the students plan to take the Caribbean Council Examinations.

#### **4. The Qualification of Teachers and Administrators**

The shortage of qualified teachers is extreme on all three levels. Only 41 percent of the primary teachers are fully qualified, having successfully taken the three-year program at Belize Teachers' College. Up until this year the country has offered no special training for secondary school teachers so most of these teachers have just completed college courses in their specialized subject area. Although this need is diminishing, the country has had to rely on teachers from abroad, such as Peace Corps Volunteers, British VSO's, and Jesuit Volunteers, to teach some subjects such as mathematics, science, and computer science.

Since until very recently the country has not provided higher education to the bachelor's level, the post-secondary schools find qualified instructors only among people trained abroad, and this has been a major constraint in trying to provide programs that are at the college level.

## **5. External Examinations**

The only significant quality control that the Government can offer is through external examinations. Up to the eighth grade, the schools make up their own tests and standards, but at the end of the eighth grade the students take the Belize National Selection Examination. This test has three purposes: to show completion of primary education; to be used by the secondary schools in selecting the students they believe qualified to enter their schools; and to be used by the Government to select winners of scholarships that offer a government stipend.

The secondary schools offer their own diploma but to achieve additional goals, students take examinations offered by the Caribbean Examination Council and "O" level British examinations. Post-secondary schools usually select their students on the examination results.

Vocational-technical students, to prove their competencies, may take examinations offered by the City and Guilds of London Institute and by the British Royal Society of Arts.

Graduates of the two-year post-secondary programs may take the "A" level British examinations since a pass in these examinations is given more weight than the Associate of Arts degree awarded by the institutions.

## **6. The Financing of Education**

As discussed in a previous paragraph on the sharing of responsibilities by the church and state for the schools, the financing is shared. The parents also share in that they are expected to buy the required textbooks and other learning supplies.

The Government each year devotes about 14 percent of its budget to education. Of this about 60 percent is for primary education, 24 percent for secondary education, and about 7 percent for higher education. The annual public expenditure per student for primary school is BZ\$ 314, secondary schools BZ\$724 and higher education institutions BZ\$1,397.

The overwhelming percentage of the funds are for teacher salaries even though salaries are not high enough to recruit and retain sufficient numbers of the qualified and capable personnel desired. This year the Government did raise salaries but because of the large number of teachers and severe overall budgetary constraints, it had to make the teachers' raises in two steps.

## 7. Constraints

The primary constraints that the Government has in carrying out its goals are the usual money and time. The Government is now devoting some 14 percent of its budget to education, and it is not likely nor perhaps feasible that the percentage can be increased. As development occurs, the actual amount for education should increase, but since education is underfunded now the increases should take care of the backlog of acute needs which is now building. For example, although the Government proposes to pay the church schools 50 percent of the expenditures for maintenance and capital outlay, it usually does not have sufficient funds in its resource accounts to pay this share. Primary school buildings in general are old and in disrepair; some are even dangerous. Before church schools are supposed to spend money for capital outlay, they need to get government approval, but the Government, seeing the shortage of resources, is reluctant to grant approval for construction. In some instances the need is so great because the schools are so overcrowded that the churches are going ahead with construction hoping somehow the Government will help out.

The time constraint results from the fact that schools are conservative institutions, and the Belizean schools have some built-in obstacles to change. For example, Belizean individuals may begin to teach as soon as they graduate from primary school. Naturally, they are going to follow the only role models they have known, and they teach as they were taught. As they move up the teacher ladder, they are busy learning enough subject matter to pass tests, and during this time their teaching methods become habitual. Then when they get to Teachers' College, it is difficult for them to change their training patterns.

Efforts to upgrade education in Belize need to recognize that the operating expenses for education are not going to increase dramatically nor rapidly. Outside donors must realize that they basically are only paying start-up costs, and if not carefully planned, the projects will put a great strain on the operating expenses.

Both the funding and time constraints indicate that expansion at any educational level needs to be done very cautiously. Because of the situation in education at all levels, much more emphasis needs to be given to improving quality rather than increasing the quantity of educational opportunities available.

## II. PRIMARY EDUCATION

### A. The Role of Primary Education in Belize's Development

In the Five Year Macro-Economic Plan for Belize, 1985 - 1989 primary education is given a dual role. First is to supply the secondary schools with a caliber of students trainable as Belize's future highly skilled labor. The second role is to provide primary school graduates leaving the formal education system with a solid academic, practical and motivational base for further job-specific training either in the context of employment or nonformal training programs. Both groups of young people should be vocationally oriented towards types of economic activities which are projected to expand during the coming decade: agriculture, tourism, light manufacturing, and public sector employment. Basic education, along with job specific training, is one of the principal means of increasing the productivity of Belizean workers given current levels of technology.

Educational policy calls for the first priority to be given to primary schooling during and beyond the 1985 -1989 period. The plan states that "The target is to sustain the efforts to provide eight to nine years of primary school education to all children between the ages of 5 and 14 years. Particular attention will be paid to curriculum reform, to providing suitable books and printed materials at reasonable costs, to upgrade the teacher education program, and to establish and to sustain an efficient school building maintenance program." (Five Year Macro-Economic Plan for Belize, 1985 - 1989, Ministry of Foreign Affairs and Economic Development, p. 44.) In connection with these goals a very high priority has been placed on curriculum reform in order to train students with relevant skills and to develop their consciousness of Belizean national identity and culture. To do this, development of new curricula in Health Science, Physical Education, English Language and Social Studies are goals. Additionally, the dissemination of teaching/learning materials emanating from the USAID-funded Primary Education Project is another important part of the government's strategy. Related as well are participation in the development of the newly-initiated Caribbean Environmental Education Project; provision of technical assistance in curriculum to classroom teachers engaged in curriculum innovations; operating a low-cost educational materials production program; establishment and operation of the National Resource Center for teachers;

operating the Schools Broadcast program and the Educational Television and Video Recording Unit; and collaboration in the Relevant Education for Agriculture and Productivity program (REAP). As stated in the Five Year Plan, the goals extend beyond the planning period through the final decade of the Twentieth Century, by which time the government's target is to achieve full adult literacy.

**B. The Current Status of Primary Education Inputs**

1. Organization and Management: Primary education is divided into three levels: three years at the beginning level (Infant I, II, and Standard I for children ages 5, 6, and 7 -- the Infant I level is comparable to kindergarten in most other educational systems); three years at the middle level, (Standards II, III, and IV for ages 8, 9, and 10) and two years at the upper level, (Standards V and VI for ages 11 and 12.) At the end of the final year of primary school, Standard VI, students take the Belize National Selection Examination administered by the government. Performance on this examination determines eligibility for secondary school.

The management of primary schools is shared by the Ministry of Education and a number of religious denominations. (See Primary School Annex, Table I.) The Roman Catholic Church enrolls slightly over 62 percent of the primary school children followed by the Anglican church with 11.5 percent and the Methodist Church with 8.9 percent. Other smaller denominations enroll slightly above 9 percent, and government schools account for 7.9 percent of the enrollment.

The partnership between the government and churches involves division of financial, administrative and operational responsibilities. Educational policy is determined by the Ministry of Education. Financial responsibilities are divided between the government and churches as follows: the Ministry of Education pays 100 percent of teachers salaries; 50 percent of recurrent maintenance and capital costs; plus supplementary support for recurrent materials costs of BZ\$1 per enrolled student. Although the church is to be reimbursed by government for 50 percent of recurrent costs and approved capital expenditures, in practice, the reimbursement process is slow. General managers reported a one to three year lag, and the approval process for capital expenditures is very slow.

Denominational management is appointed by the churches. The largest denominations have salaried General Managers with local district managers, who often are parish pastors or priests who assume the responsibilities of supervising schools in addition to their clerical responsibilities. Some principals report frequent visits by the

local school manager, six to seven times annually. Others indicate a more limited frequency of once or twice annually. Most principals interviewed by the sector assessment team indicate that the local managers play a financial role and may assist with the religious component of the curriculum. The local managers may supply principals with vouchers for small-scale materials purchases or alternatively distribute materials directly to the schools. Local managers have the responsibility for hiring, transferring and dismissing teachers and principals. It is not uncommon for teachers and principals to be transferred from one school to another without their requests, especially in rural areas. Teachers may change managements; they may move from one denominational system to another, suggesting that religious affiliation is not an especially important criterion for securing a teaching position.

Management of government primary schools is organized through the division of primary education, headed by the Principal Education Officer for Primary Schools, located in Belize City. Under him are District Education Officers: two for Belize District and one for each of the other five districts. District Education Officers, with the approval of the Principal Education Officer, are responsible for appointment and transfer of teachers in government schools. Beyond this, it would appear that each District Education Officer defines the job as he/she sees fit, responding to requests for action from the Ministry as well as those from the schools themselves. Standards and procedures for supervising schools vary from district to district. District Education Officers have no explicit responsibility for teacher training and upgrading; however, some assist in the supervision of the Belize Teachers' College interns and with classes for unqualified teachers to prepare for certification examinations. (See section on teachers.)

While the Ministry of Education sets the basic curriculum of primary schools, matters of implementation are left to the religious managements and school principals. Matters such as the selection of textbooks and other learning materials, in-service training for personnel, and student evaluation procedures are determined predominately at the school level with some guidance from the management.

2. Management Information and Communications: While there are formal and informal arrangements for communication among the government and various denominational managements, none appears to be particularly effective. The National Council of Education, founded in 1967 with representatives from religious denominations as well as the Ministry of Education, is currently inactive. Ad hoc joint committees are formed from time to time to deal with special issues; a committee was formed in early 1988 to study the possibilities of standardizing textbooks. This committee, however, failed to reach a consensus on a solution to the problem.

The Ministry of Education has very limited capabilities to collect and analyze the information necessary for effective management. In 1987 USAID donated two computers, and a Primary School Monitoring System was introduced to collect what could constitute a basic body of data on primary schools in the future. The system has not yet been fully implemented.

### Conclusion I.

**The management partnership between the government and churches should be strengthened through more formal and informal collaboration.**

3. Financing of Primary Schools: Sources and Expenditures Belizean primary schools have multiple funding sources. The Ministry of Education finances 100 percent of the capital expenditures associated with government primary schools and 50 percent of government approved capital expenditures for government-aided and government-assisted church schools. In practice, however, capital expenditures represent a very small percentage of total government expenditures on primary education. (See Primary School Annex, Table 2.) Much of all new construction may come from external funding sources. The Roman Catholic General Manager reported having received BZ\$28,000 in reimbursements for capital expenditures during the 1984-88 period while actually spending BZ\$324,000 on primary school construction.

Recurrent expenditures for primary schools are shared by the government, churches and parents. One perspective on recurrent expenditures shows that teachers salaries are 93 percent of recurrent expenditures in government-aided primary schools and 92 percent in government primary schools. Only 7 percent of expenditures were devoted to materials, supplies and maintenance costs in both church and government schools. Parents do, to the extent that they are economically able, contribute to the support of recurrent costs through the purchase of textbooks and school supplies.

The current level of expenditure is inadequate to greatly improve either the quality or coverage of the primary system. An increase in government expenditure on the subsector is unlikely because current spending on education is a substantial portion of the annual budget (20 - 24 percent). Primary schools receive roughly 59 percent of total educational expenditures. Nor is an increase in church spending likely due to the financial constraints the churches themselves face.

### Conclusion 2.

To increase either capital or recurrent expenditures on primary education, additional funding sources or savings on current expenditures will be necessary.

### Conclusion 3.

While non-salary expenditures are low, it is unlikely that the government will be able to reduce expenditures on teachers' salaries, holding the current proportion of trained teachers constant, without increasing the teacher/pupil ratio.

Student Enrollment: Estimates of net student enrollment rates vary. According to calculations based on the 1980 census and reported enrollment figures, between 73 percent and 83 percent of the children 5 - 14 years of age were enrolled in primary school. (See Primary School Annex, Table 3.) Student enrollment in primary schools has increased annually at approximately 0.9 percent between 1970 and 1980, (see Primary School Annex, Table 4) while the population increased at a rate of approximately 2.1 percent during the same period. Thus, by 1987, low estimates of net enrollment indicate that approximately 72 percent of the 5 - 14 year olds are in school while higher estimates place net enrollment at approximately 78 percent. (See Student Numbers and Primary Schooling, George Clark, British Development Division technical assistant to Ministry of Education, 9/88.) These estimates do not take into account the influx of refugees from other Central American nations, estimated variously between 20,000 and 30,000 people. Taking these factors together it seems probable that the net enrollment rate for primary school students aged 5 - 14 years is actually declining and may continue to do so if capacity does not increase.

Internal Efficiency: Approximately two out of every three children who enter primary school are likely to complete the full eight year program (See Primary School Annex, Table 5.) Up to one fourth of the children who enroll in Infant I do not pass to Infant II. The practice of promoting children automatically varies from school to school. In field visits to 11 primary schools the team found the repetition between Infant I and Infant II varied from 100 percent in one school to none in another. The Ministry of Education should consider incorporating information on repetition in the newly-implemented Primary School Monitoring System.

Rural/Urban Enrollment Distribution: In 1987 just over one-half of all primary school students were enrolled in rural schools. (See Primary School Annex, Table 7.) It is important to note, however, that in all districts with the exception of Belize, where

Belize City is located, the enrollment is predominately rural. School size in the rural areas tends to be small (see Primary School Annex, Table 8). Over one third of the schools have 100 pupils or fewer, and about 14 percent have fewer than 50 pupils. This has important implications for the efficiency of teaching.

Enrollment Distribution by Sex: In terms of distribution of primary school student enrollment by sex (see Primary School Annex, Table 9) girls and boys are enrolled in primary schools in the same proportion that they exist in the population.

Enrollment Distribution by Ethnicity and Language Grouping: There are no data currently available on student enrollment by ethnicity or language groupings. The 1980 Census describes a multilingual population: 50.6 percent classified as English-speaking; 31.6 percent Spanish-speaking; 6 percent Garífuna; 3.8 percent Maya and 8 percent as other. Furthermore, the census notes that English-based Creole is the generally widespread common language. While there is no overt discrimination against any ethnic group within Belize, the concentration of certain ethnic groups (including Spanish speakers, Mayas and Black Caribs who speak Garífuna) in rural areas and among the lower income groupings of the population may correlate with certain educational disadvantages. Moreover, the influx of refugees from Spanish-speaking countries means that more non-English speaking pupils are entering the schools at all grade levels. This has important pedagogic implications particularly since English is the language of instruction.

#### Conclusion 4.

There is evidence to suggest that student enrollment is not keeping pace with population growth and that net enrollment rates may be declining.

#### Conclusion 5.

A significant proportion (33 percent) of the children who start primary school do not complete the full eight year program.

#### Conclusion 6.

The vast majority of children in primary schools do not speak standard English as their mother tongue.

Teachers: Presently, only 41 percent of all primary school teachers have been trained at the Belize Teachers' College. (See Primary School Annex, Table 7.) The College offers a three-year program including two years of course work and one year of internship teaching. Twenty-nine percent of the teachers only have either a first or second class certification attained by passing examinations in various academic subject areas. This is basically a program of self-study. This program, however, does not emphasize teaching methods and does not include formal instruction or field supervision of unqualified teachers trying to upgrade their professional status and skills. Strengthening this system and extending it to the level of the Belize Teachers' College may present an alternative to training all teachers through the current three-year program.

The remaining 31 percent of teachers have entered the teaching profession as primary school graduates or in more recent years as secondary school graduates and have not participated in any upgrading program. Forty-one percent of the trained teachers are concentrated in Belize City, while 92 percent of the unqualified teachers work outside the capital. Although the trained teaching force has been growing at the rate of approximately 1 percent per annum since 1975, this is only slightly ahead of the annual increase in student enrollment (0.8 percent) over the same time. At this pace, movement towards a fully trained teaching force will proceed very slowly if the system relies on the established three year program at the Belize Teachers' College.

Beyond the certification program for unqualified teachers, in-service training for professional up-grading is an ad hoc activity undertaken by the Ministry of Education, managements of the various religious denominations and the teachers' union. While valuable in and of itself, in-service training does not systematically cover the professional areas needed to upgrade teachers from a certified to a trained standard.

There are salary incentives for teachers to seek further training. In general, however, teachers salaries do not compare favorably with other occupations of comparable levels of education. This creates difficulties in attracting the most qualified people into the profession. In some cases housing allowances are provided for school principals or, alternatively, a teacher/principal house in rural areas. The extent of these incentives is limited and should be considered as part of a strategy for improving the quality of teachers in rural areas. The additional stipend is small for principals and not commensurate with the principal's additional responsibilities.

The allocation of teachers to schools is presently determined by a Ministry of Education formula and results in a an overall teacher/pupil ratio of 1/25. However, the

ratio of trained teachers to pupils in the primary system is, 1/57. Increasing the teacher/pupil ratio would be educationally feasible only if the proportion of trained teachers increases significantly.

### Conclusion 7.

**The proportion of trained teachers (41 percent) is increasing very slowly under present training arrangements. Alternatives for upgrading teacher quality are needed.**

Curriculum: Curriculum for primary schools includes language arts, mathematics, social studies, science, religion, physical education, arts and crafts, and music. Health science has also recently been introduced into the curriculum.

Curriculum guides are developed by the Curriculum Development Unit of the Ministry of Education. Guides in core subjects (language arts, mathematics, science and social studies and physical education) have been distributed to schools, although school visits revealed that there were not enough guides for each teacher's use. The Curriculum Development Unit has conducted in-service training workshops to support the use of these guides, but many teachers have not participated in these workshops. Expecting teachers to use the curriculum guides to prepare course and lesson plans is not very realistic given the lack of resources available to teachers and their limited levels of education and training. Some specialists also argue that the curriculum covers too much and is artificially fragmented. This occurs particularly in the Language Arts area where vocabulary, reading, spelling and comprehension may be taught in isolation from each other. These problems are directly related to the weak pedagogic environment in the typical primary school classroom.

Learning Materials: Students must purchase their own textbooks, workbooks and other school supplies. A survey of textbooks conducted by an ad hoc textbook committee in early 1988 showed that required book costs averaged U.S. \$8.50 at the Infant I level and rose to U.S. \$35.00 at the Standard VI level. This does not include the cost of paper and pencils which parents need to purchase throughout the school year. Parents responded to the survey by saying that textbooks are too costly (85 percent); that the recommended books are not readily available (72 percent); and that textbooks should not be changed so frequently (77 percent). Moreover, 92 percent felt that student textbooks should be standardized.

At present, each school may select its own textbooks. The managements of the various denominational schools recommend books, but schools are not obliged to use

them. Moreover, each principal must take the initiative to order textbooks for his/her school. In practice, the principals of larger, urban schools place orders with bookstores at the end of each academic year, while principals of smaller rural schools frequently do not. This means that bookstores tend to order less than the actual demand for books in any given year. Additionally, given the urban location of bookstores, rural students have difficulty in obtaining books. In visits to seven rural primary schools less than 25 percent of the students had acquired all the necessary books for the current school year.

The Principal Education Officer for Primary Schools reported that the Government has been involved in both the production and distribution of textbooks and other learning materials. The printing of a locally developed math book in Hong Kong was undertaken. The books were produced and delivered for a cost of BZ \$4 and sold very quickly. Funds have not been available for a second printing, however. The Government also opened its own bookstore to buy and sell books at cost. Although currently stocked with textbooks, the store has been closed since February 1988 because the Government does not have a manager for it. To date, a system of distributing these books to rural schools where they are most needed has not been established.

Other learning materials issues relate to cultural relevance and appropriate language of instruction. Many schools are currently using Caribbean-based materials, which have either been developed regionally or adapted to the regional market. There have also been local efforts to develop Belizean materials. The Curriculum Development Unit participated in the USAID-funded Primary Education Project and developed materials in language arts, science and mathematics. Related to this effort was a language arts program known as TESOL -- Teaching English to Speakers of Other Languages. Additionally, a well-known Catholic Deacon has piloted a program of language arts instruction based on English as a Second Language materials for Spanish speakers. This has recently been adapted for Creole-speaking children in the lower division of primary school (Infant I, II, and Standard I.) The program is locally known as the Benque Viejo materials. Lack of funding has prevented the reproduction of both the Primary Education Project and Benque Viejo materials on a mass and recurring basis.

#### Conclusion 8.

**There is no textbook policy at present. This increases the costs through small scale, uncoordinated purchases and reduces the availability of books and other printed learning materials. The government should in conjunction with the religious managements establish a textbook policy.**

### Conclusion 9.

Teaching and learning materials are very scarce, particularly in rural areas. Substantial investments have already been made to develop and pilot locally relevant materials. These efforts should be followed-up with low-cost approaches to reproduction either locally or via integration with a larger commercial market such as the English-speaking Caribbean.

School Facilities and Equipment: School facilities are characterized by poor maintenance and lack of equipment. Eleven of the 12 school visited, which were in both urban and rural areas, were in need of significant repairs or expansion of the facilities. While desks, benches, blackboards and a few closets are generally available in urban and rural schools, equipment beyond this is lacking. Ten of the eleven primary schools visited had no sports equipment. Few had adequate bookshelves, and storage closets are limited. Two of the urban schools had libraries. Urban schools tend to be overcrowded with as many as eight classes occupying a classroom space designed for three classes. The potential noise level under these circumstances is very high, and teachers try to keep students seated quietly rather than using activity-based teaching methods.

Small rural schools by contrast tend to underutilize the classroom space. This is partially the result of having different denominational schools located within a limited radius. According to Ministry of Education statistics, 28 schools have only one or two teachers (14 percent); 46 schools have three to four teachers (23 percent) and 49 schools have five to eight teachers (24 percent). (See Primary School Annex, Table 6.)

School maintenance is limited because of budget constraints and appears to be exacerbated by the church-state management policy. Under this policy, the Ministry is responsible for half of the maintenance and capital costs associated with government-aided schools. However, the general managers of the denominational schools report that the government is slow to reimburse for maintenance expenditures (one to three years) and capital expenditures must be approved prior to their initiation. These factors tend to severely limit recurrent expenditures related to the maintenance of school facilities as well the capital expenditures to expand or build additional facilities when overcrowding occurs.

### **Conclusion 10.**

**The system for sharing recurrent and capital costs of school facilities needs to be reexamined to improve its efficiency.**

### **Conclusion 11.**

**A school location planning procedure with a view to the construction of new schools and the amalgamation of small, inefficient schools, is needed.**

**Evaluation:** The primary school system relies heavily on summative evaluation procedures. The school year is divided into three terms, and students generally take examinations at the end of each term to determine their progress and to assess whether or not they pass to the next grade level. Weekly and daily assignments are not necessarily included in the evaluation process. Examinations and tests tend to have an evaluative rather than diagnostic focus. Many principals of large schools report tracking students into "faster" and "slower" classes as early as the first year of primary school. These groupings appear to be based exclusively on teacher observations. There is some cursory evidence, however, that children who are inappropriately placed initially may be moved to other groups.

The Belize National Selection Examination is the most important formal evaluation which exists for the primary schools. In addition to certifying the completion of primary school, the examination determines which children will enter secondary school as well as the allocation of government scholarships for secondary schooling. Approximately 85 percent of the students enrolled in Standard VI, the last year of primary school, take the examination which covers English Usage and Comprehension, a written composition, mathematics, social studies, science, and learning potential. Teaching in the upper grades of primary school (Standards V and VI) is highly focused on preparation for the examination. At present, the examination results are reported only in terms of each student's overall percentile rank on the total score on the test. This does not constitute meaningful feedback. While emphasis on diagnostic testing should be given a higher priority, the Selection Examination has untapped potential as a measure of the quality of primary education throughout the country.

### **Conclusion 12.**

**Diagnosis rather than final evaluation should be emphasized. However, the Belize National Selection Examination results should be analyzed annually and results made available to students, teachers, principals and parents.**

Pedagogy and Student Learning: Pedagogy, the actual teaching strategies used in the classroom, depends heavily on other inputs: the curriculum, teaching techniques, the type and quantity of learning materials available, and the student evaluation and feedback procedures. While there is no specific combination of these inputs that are guaranteed to produce maximum student learning, research has demonstrated that the absence or addition of certain inputs can significantly affect student learning outcomes. For example, research by the World Bank has shown that the availability of textbooks can significantly impact student learning. The limited quantity and quality of various inputs, including curriculum teaching strategies, learning materials, and evaluation, produce an inefficient pedagogic process in many Belizean primary schools. This suboptimal combination results in an inefficient learning environment for students.

In Belize primary schools there are several salient pedagogical problems. First is absence of a strong English as a Second Language curriculum for the lower division of primary school where the majority of children speak either Creole or another language as their first language. Second is the limited time in which pupils are actively engaged in learning. In multigraded rural schools where one teacher may have to teach a span of three or four grades simultaneously without training or logistical support in the form of student learning materials, much student learning time is wasted. Coupled with the lack of pedagogic support for untrained teachers and often crowded open-space classrooms, the result is what Belizeans refer to as the "chalk and talk" method of teaching. Teachers lecture rather than teach; and children listen, repeat or copy but do not reach the "learn and apply" stage. Two former Peace Corps Volunteers, who were experienced teachers prior to their service in Belize, described the typical pedagogic approach as quite a "sane" response to a very difficult teaching environment. To improve the pedagogic process in primary schools, a package of inputs including a better curriculum supported by learning materials, teacher training, and modified classroom facilities is needed. Changing one element alone when several improvements are needed is unlikely to make a significant difference.

### Conclusion 13.

The pedagogic process is inefficient in many primary schools due to a lack of English as a second language, multigrade curriculum and instructional methodologies, lack of learning materials, limited teacher training and over-crowded facilities.

#### **D. Primary School Outputs**

Each year, approximately 59 percent of the students, who leave primary school, Standard VI level, enroll in secondary schools. (See Primary School Annex, Table 10.) The remaining 41 percent are faced with the prospects of entering the labor market. There are several indications of the quality of skills, academic, vocational, and attitudinal, which students have gained in the course of their primary school studies. These include performance on the Belize National Selection Examination, reports from secondary school teachers regarding the capabilities of entering students, and reports from employers and professionals who hire primary school graduates.

Results of the Belize National Selection Examination suggest that student academic achievement is low in both English Language and Mathematics. A sample analysis of 476 students drawn from 12 schools (one rural and one urban in each of the six districts of Belize) shows that most students (62 percent and 79 percent) had less than two-thirds of the responses correct in the English Usage and Comprehension and Mathematics sections. Both components of the examination are relatively easy, roughly equivalent to six years of primary education in a developed country. Moreover, rural students scored substantially lower than urban students in both subject areas. (See Primary School Annex, Tables 11 and 12.)

In a study of primary school quality, a British Development Division Secondary School Specialist attached to the Ministry of Education stated "Most secondary teachers report that many of the new entrants to secondary school who are mainly in the sixtieth percentile and above on the Belize National Selection Examination have poorly developed literacy and numeracy skills." The report goes on to ask, if these are the students in the upper 40 percent what about the knowledge of those below?

Professionals who have contact with primary school leavers attempting to enter the labor market report that these youngsters encounter difficulties. Part of the difficulties stem from high rates of unemployment within the labor market itself except in certain rural areas where seasonal agricultural employment is readily available. But professionals and employers assert that youngsters do not have required vocational skills. This is evidenced by the primary school curriculum itself which generally does not offer pre-vocational training. With the exception of the REAP program, which operates in about 28 percent of the primary schools, students receive no vocational orientation. The Director of the National Development Foundation of Belize, which provides training and credit for micro-enterprises, stated that children are leaving the schools with t a sense of entrepreneurship or self-esteem, important components for succeeding in the labor market.

## **E. Donor Agency Programs in Primary Education**

USAID: USAID has given some assistance to primary education since 1985. Between 1986 and 1988 USAID has supported a Learning Technologies Project. Included in the project were a pilot study of a math game, a survey of learning technologies conducted in the primary schools, a programmed instructional approach to reading and social studies at Standard I level based on poster materials and student workbooks and the development and initial implementation of a Primary School Monitoring System.

Through a USAID participant training program, two groups of rural school principals have gone for summer training in school administration at Ferris State College and University of North Florida.

Between 1980 - 1986 the USAID Regional Development Office in Barbados funded the regional Caribbean Education Development Project in which Belize was included. One component, The Basic Needs Trust Fund, helped to fund the construction of new schools and additional facilities at existing schools. Another component, The Primary Education Project invested in the development of a curriculum for language arts, mathematics and sciences for the primary schools. After one initial round of distributing these materials to 30 Belizean schools, funds have not been available to extend distribution to all primary schools. Following up on the Primary Education Project, USAID provided funding for an evaluation of the Teaching English to Speakers of Other Languages materials produced by that program and also had the independently produced Benque Viejo materials evaluated.

Peace Corps: The Peace Corps has been actively involved in primary education, and currently has some 82 volunteers working as teacher trainers, school resource personnel and curriculum specialists. (See Annex - Peace Corps.)

UNICEF: In general, UNICEF focuses its program at the preschool level. However, UNICEF has worked with the Curriculum Development Unit on a Health Education curriculum. At present the Unit is conducting in-service training for teachers to implement that curriculum in the schools.

British Development Division: British Development Division funds one secondary school specialist attached to the Ministry of Education.

CARE: CARE was a major sponsor of the REAP program, and is now supporting the GROWTH program, which grew out of the REAP activities. Both of these programs are described in the section on Agricultural Education.

**F. Recommendations**

The recommendations for assistance to primary education in Belize are framed in terms of four options:

- Option 1: A substantial increase in funding above the current level of \$1,000,000 annually into the foreseeable future, perhaps with funding from another donor besides USAID.
- Option 2: Continued fundings of approximately \$1,000,000 annually into the foreseeable future, but with reduced operating costs for the USAID mission.
- Option 3: Funding of approximately \$1,000,000 annually through 1992, reduced mission operating costs, and a sharp reduction of assistance thereafter.
- Option 4: A sharp reduction in funding and Mission operating costs in the immediate future.

Option 1:

Option One includes a mix of programs which are designed first and foremost to improve classroom pedagogy and learning and second to build institutional capacity of the Ministry of Education to respond to the future needs of primary education. The programs would include:

1. Provide teacher training in an English as a Second Language-based curriculum for the first three grades of primary school; teacher training in multigrade teaching techniques; learning materials for students, resource materials for teachers and capital for school improvements. This package of inputs would be focused on rural primary schools with predominately non-English-speaking students.

2. Support an in-service program of teacher upgrading, conducted by the Belize Teachers' College for all unqualified teachers. The program would be conducted on a

decentralized basis through existing and newly established teachers' centers in each of the districts. This program would have the capacity to upgrade all unqualified teachers by the year 1992.

3. Support the establishment of a National Learning Materials Council which would study, draw up and recommend policy on textbooks and other learning materials. The Council or Board should have representation from the Ministry of Education, the denominational managements, teachers, principals and parents. It is possible that the Council would need the services of a technical specialist to help it identify economically and pedagogically feasible options for addressing the shortage of learning materials in the schools.

4. Support the production and dissemination of learning materials already developed and pilot tested through earlier USAID sponsored efforts including the Primary Education Project and Teaching English to Speakers of Other Languages (TESL). The target group should be students in Infant I, II and Standard I.

5. Support training of primary school principals as instructional leaders and school managers through the USAID participant training program.

6. Support the Primary School Monitoring System and analysis of the annual Belize National Selection Examination results by providing training for an Ministry of Education Officer attached to the Division of Primary Education, Ministry of Education.

7. Support the training of Ministry of Education personnel in the Division of Primary Education along with representatives of the general and local management of denominational schools in school location planning techniques with a focus on amalgamating inefficient rural schools, expanding overcrowded schools and locating new schools.

#### Option 2:

Includes programs three through seven cited above. Option Two assumes that USAID will not be involved in new programs with the exception of helping to establish a National Learning Materials Council. This group of programs focuses on institution building (Learning Materials Council) support for the school monitoring program, and training Ministry of Education and church managers in techniques of school location

planning. It also piggybacks on programs in which USAID and the Government of Belize have already made substantial investments, such as the production and dissemination of already developed and piloted materials.

#### Option 3:

Option Three covers a group of programs which can be managed with reduced operating costs and which also can be completed by 1992. Included are institutional development programs, a Learning Materials Council; training of school principals; and support for the Primary School Monitoring System. It would also be feasible to include program four, supporting the production and dissemination of learning materials, because these are fully ready and the Ministry has the capacity to implement the program with adequate resources.

#### Option 4:

Option Four would permit some limited and low cost institution building. Establishing a Learning Materials Council; training of school principals; and support for the Primary School Monitoring System represent a feasible package under this scenario. Moreover, it would continue to provide assistance to Peace Corps Volunteers involved in primary education programs in Belize.

### III. VOCATIONAL-TECHNICAL EDUCATION

#### A. Introduction

The Government of Belize and USAID/Belize have developed common strategies for economic growth through export development. In the Five Year Macro-Economic Plan For Belize, 1985-1989, the Government of Belize stated that exports are viewed "...as the engine of economic growth." The two highest economic development priority industries identified in the plan were tourism and agriculture.

In 1985, a major intervention was initiated by the Government and USAID/Belize called the Training for Employment and Productivity (TEP) project. The project paper stated that the purpose "...is to provide the management, public administration, and skills training necessary to promote growth of export- and tourism-oriented enterprises in Belize." The project will operate through FY 1990 and consists of a private sector management and technical training component and a government vocational education component. Both the Government of Belize and USAID have recognized the need to make education and training practical and relevant to the development needs of the country.

#### B. Assumptions

The following assumptions guided the assessment of vocational-technical education in Belize:

- Definition of Vocational-Technical Education:

Education may be defined as sequenced purposeful learning. Vocational-Technical Education incorporates these characteristics, but is also distinguished by activities which develop in the learners the knowledge, skills and attitudes required for work, including both salaried employment and self-employment.

- Scope of Vocational-Technical Education and Training:

Our definition of vocational-technical education includes: all formal vocational-technical education and training that leads to a diploma at any level of the educational

system, in public or private institutions, exclusive of a four-year university degree; and nonformal vocational-technical education and training that may, or may not result in a certificate of some sort and that is sponsored by either public or private sector organizations.

- Competency-Based Vocational-Technical Education Programs:

An evaluation must begin with a standard upon which judgments are made. The standard used in this assessment is competency-based vocational-technical education programs, which are characterized by: measurable instructional objectives based upon current business/industry competencies for selected occupations; competency-based instructional materials and techniques that teach towards the attainment of those objectives; criterion-referenced tests that evaluate the learners' attainment of the objectives; and management systems that facilitate the training.

- Agricultural Education: Agricultural education is a program area of vocational-technical education; however, because of the special interest and priority position of agriculture in Belize, it is treated as a separate assessment topic. This does not imply that agricultural education should be considered outside of the vocational-technical education framework for planning purposes.

### C. Major Developmental Influences in Belizean Vocational-Technical Education

The same three major factors that have shaped the other areas of Belizean education have influenced the formation of vocational-technical education:

The British colonial period transmitted to Belizean society an academically-oriented, test-oriented education model which persists, with some notable exceptions, to this day. Skills training for non-professional occupations was not held in high regard. Vocational-technical education is still considered by the mass of people as a second choice to academic training. These strongly held attitudes permeate Belizean society and must be taken into account in any kind of vocational-technical education or training activity.

The historical church-state relationship in education is maintained to this day at the primary, secondary, and tertiary levels of education. The Government of Belize views the relationship as a necessary and vital one. The system of shared financing and administration has resulted in a dichotomy of decision making, especially at the primary school level. No educational decision can ignore this relationship. No educational initiative that ignores this relationship can be expected to succeed.

The small population of Belize, the relatively small economy, and the scarce revenues that Government of Belize must cope with impose extremely stringent limits on financial resources and on what government can successfully accomplish and sustain, in terms of educational innovations. This is particularly true in vocational-technical education, where capital expenditures, tools and equipment, materials and supplies and maintenance produce overhead costs which are considerably higher than the cost of academic training in its present form.

D. Historical Perspective - Three Periods of Development of Belizean Vocational-Technical Education

The three periods of growth of vocational-technical education may be defined as: 1) the Late Colonial Period; 2) the Self-Government Period; and 3) the Post-Independence Period. The following list is intended to be illustrative rather than comprehensive of the developments in formal and nonformal vocational-technical education during this five-decade time span:

Late Colonial Period:

Belizean education has included vocational-technical education as a regular part of formal and nonformal education for more than five decades. Individual schools began offering vocationally-oriented programs during the late colonial period, from the end of the Second World War to 1964 when Belize became a self-governing colony. Two milestones during this period were the founding of the Belize Technical College in 1951 and the initiation of vocational programs by St. John's College, a high school in Belize City, during the early 1950's.

The Self-Government Period:

During the pre-independence period during which Belize was self-governing (1964-1981) vocational technical education made major advances. Three institutions with post-secondary programs were established: the Belize School of Agriculture (later renamed the Belize College of Agriculture), the Belize Teachers' College and the Belize School of Nursing.

Practical and pre-vocational curricula were introduced in several of the secondary schools. Three of the main high schools in Belize City, St. Catherine's College, Wesley College and Anglican Cathedral College, introduced such programs but remained

primarily academic institutions. The Orange Walk Technical High School in the Orange Walk District and Sacred Heart College in the Cayo District began to offer pre-vocational programs. The high school that was started in the new capital, Belmopan, featured such programs as the name of the school indicates: the Belmopan Comprehensive School.

Vocationally oriented programs were inaugurated also in the primary schools. The Relevant Education for Agriculture and Productivity (REAP) program was started in 1976 as a pilot program and expanded to all six districts as it was found to introduce an important dimension in primary education. The William Harvey Home Economics Center began to offer a one-year program for standard V level students to serve three Belize Methodist primary schools (Wesley, Lake Independence and Ebenezer).

Nonformal vocational-technical educational programs also advanced during this period with the establishment of several institutions and programs.

The Belize Vocational Training Centre offered skill training programs for post-primary students. The Youth Development Centre emphasized agricultural education but also provided some training in carpentry and mechanics. The National 4-H Center had courses on raising small animals. Two youth correctional facilities, the Listowell Boys Training School for 12 to 17 year old boys and the Princess Royal Youth Hostel included practical training programs.

#### Post-Independence Period:

Since independence in 1981, Belize has seen a quickening of the pace in the development of formal vocational technical education programs at the secondary education level. High schools with these programs include the Escuela Secundaria Mexico near Corozal Town, the Mopan Technical High School in Benque Viejo, the Belize Adventist College and the Corozal Community College (both in Corozal Town), the Ecumenical College in Dangriga, the Belize Junior School of Agriculture in Orange Walk District and the Toledo Community College in Punta Gorda Town.

At the primary education level, the Relevant Education for Agriculture and Productivity (REAP) programs expanded to include 65 schools. In Corozal Town a Home Economics and Manual Training Centre provided pre-vocational training for Standard V and VI students from the school in that town.

In 1986, the Caribbean Examinations Council, the Association of Canadian Community Colleges and the Canadian International Development Agency began a project to strengthen vocational-technical education programs and have made available instructional modules in office procedures, woods, metals, general electricity, technical drawing and agriculture at the practical or orientation level of training.

The Ministry of Education is in the process of planning a High School Farm Project including practical agricultural instruction and school farms at five high schools.

The development of nonformal vocational technical training programs continued during this period. The Belize Institute of Management (BIM) was strengthened by the Training for Employment and Productivity (TEP) project. The Institute provides the private as well as the public sector with management training and some related skills training. The project and Institute are discussed in detail in the Management Training Sector of this assessment.

The Training for Employment and Productivity (TEP) Project also is to assist the Ministry of Education to improve its vocational-technical education system.

The Gaining Relevant Orientation to Work, Training and Help (Growth) is an outgrowth of the REAP program and provides training and credit facilities for primary school graduates.

The Appropriate Technology Project is an attempt to educate poor people in more efficient charcoal burning, the construction of Lorena stoves, making pottery, construction of low-cost water storage containers, and agro-industrial techniques, such as solar drying and the preservation of foods. Two objectives of the project are to reduce the cost of domestic cooking for poor families and halt the deforestation process in Belize.

The development of the several courses and programs, formal as well as non-formal has been episodic and uncoordinated by the Ministry of Education or the religious denominations. Linkages between the levels, courses, and institutions have not developed; consequently, the system operates on a ad hoc basis.

## **E. The Structure of Vocational-Technical Education and Training in Belize**

### **Program Levels**

To facilitate an understanding of the different terms used in the description of vocational-technical programs in the United States and Belize, the following comparison of terms is offered:

- Pre-Vocational Education/Awareness Level:

In the United States pre-vocational education normally takes place in the latter primary school grades or early junior high school grades, around grades 6, 7, and 8. In Belize, pre-vocational education is found in Standards IV, V, and VI. The educational goal of pre-vocational education is to create an awareness of the world of work. Pre-vocational education has operated mainly in the rural primary schools. It has included some practical-level competence in agriculturally-oriented skills. Several urban pre-vocational programs are also operative.

- Pre-Vocational/Practical Or Orientation Level:

In the United States, the latter junior high school years, grades 7, 8 and 9, often have courses which have titles such as "Practical Electricity," "Orientation to Wood Technology," or "Introduction to Technology." These programs have a practical, hands-on content and are geared to students who will use these skills in their everyday lives, or as stepping stones to additional training in those subjects. In Belize, the equivalent to this practical or orientation level of vocational-technical education is found in the two-year junior secondary schools and in many secondary schools. This orientation level of training is an extension of the awareness-level of training to an occupational readiness stage. The student has not yet begun occupational preparation, but is introduced to practically-oriented skills. This level of vocational-technical education is similar to Industrial Arts (IA) education, only simpler.

- Vocational Occupational Preparation/Beginning Competence Level:

In the U.S. beginning preparation for occupations normally starts in the senior high school years, or grades 10 through 12. In Belize, the delineation between the occupational readiness level and the occupational preparation/beginning occupational competence level becomes somewhat blurred. Most of the four-year Belize high schools operate orientation-level, industrial arts types of programs; however, some of the four-year high schools offer some technician-level training. In those courses an individual completing a program is expected to possess the beginning occupational competencies required to find employment in that field. In the United States, many students completing high school vocational education programs go on to advanced training in post-secondary schools, such as vocational-technical institutes or two-year community colleges. In Belize, occupational preparation / beginning occupational competence is

often a terminal level of formal education although such training may not be adequate for a beginning level job in the particular vocation.

- Vocational Occupational Preparation/Occupational Competence Level:

In the U.S. there are many opportunities for students to continue their training in post-secondary schools. In Belize, the opportunities for continued study are restricted to a handful of public and private secondary schools that offer the two-year Sixth Forms, and to non-university professional schools offering advanced diplomas equivalent to one or two years of community college courses. The purpose of these schools is to prepare students to craftsman levels. Belizean programs are available for technicians at the Belize Technical College and for teachers, agriculturalists and nurses. More advanced mathematics and science is required for the completion of these programs in both countries. Upon completion of these programs, students are considered to be occupationally competent. They are not yet considered to be full professionals, at the level of the four-year university graduates. Individuals who receive four-year baccalaureate professional degrees are considered beyond the scope of vocational-technical education in both the United States and Belize.

- Supplementary Occupational Preparation:

This level of vocational-education is for individuals who are already working in an occupation but need updating or additional skills training. In the U.S. supplementary occupational training is common in both formal and nonformal educational institutions. Supplementary vocational-technical education is often presented in short courses. In Belize, supplemental occupational training exists primarily in nonformal or informal (in-house, in-plant training) settings.

### Program Areas

Formal vocational-technical education is commonly divided into several program areas. Although Belizean vocational-technical education is not officially divided into such program areas, the following will describe the various types of courses offered in Belize using categories commonly found in the U.S.

- Agricultural Occupations Education:

This program area is sometimes called Agribusiness and Natural Resources Education, depending on local program emphasis. Agricultural Education in Belize is

offered through the Ministry of Education, the Ministry of Agriculture, the Ministry of Social Services (at the Youth Development Centre) and through private voluntary agencies. With the exception of the pre-vocational agriculture taught in the rural primary schools and a few high schools, agricultural education is almost exclusively a male domain. Most post-secondary agricultural training for Belizeans is acquired in foreign centers, colleges or universities in Central America, the Caribbean, North America, or in the United Kingdom.

- Business Education:

This program area includes what is commonly referred to in Belize as commercial education. This course is often offered in Belizean high schools and is taken most often by women. Most secondary school course offerings are related to clerical, secretarial, and office practice skills. The Sixth Forms and the University College of Belize offer business administration programs. Nonformal management education courses are offered through the Belize Institute of Management (BIM).

- Diversified Occupations (Cooperative Education and Work Experience):

Several Belizean high schools have independently and non-systematically placed individual students in on-the-job training situations. This is, however, not a common aspect of vocational-technical education and training in Belize. The result is that many students complete vocational-technical programs without ever having had work experience in the field. Some even begin teaching the subjects without any practical work experience.

- Health Education:

Health occupations education in Belize consists of pharmacy, laboratory technician, and nursing education.

- Industrial Arts Education:

Probably the most common vocational course at the secondary level is Industrial Arts. Woods, metals, and agriculture are commonly studied by males; home economics, foods, garment making and commercial courses are almost exclusively for females. Other than the commercial course graduates, few of the Industrial Arts graduates find work related to their vocational studies. In most junior secondary and secondary schools, it is the lower academic achievers who end up in these courses.

- Industrial Education:

Industrial education, or trade and industrial education as it is sometimes called, is a common course offering in most of the schools with vocational-technical education. Traditional subjects such as automotive mechanics, construction trades, welding, technical drawing, and more recently diesel mechanics are offered.

- Marketing or Distributive Education:

Some of the commercial courses offered contain elements of marketing or distributive education. There is little or no emphasis placed on these courses in Belize.

#### **F. Structural Problems in Belizean Vocational-Technical Education Program**

As a result of the ad hoc evolutionary pattern of vocational-technical education in Belize, two major structural problems developed and persist to this day.

There is a lack of linkage among the levels of the formal vocational-technical education system. The primary school pre-vocational programs operate in many rural, but not many urban areas. There is no clear path for a learner to follow who wants to continue and build on the awareness-level training received in the primary grades. The junior secondary school's practical or orientation-level Industrial Arts courses exist in a state of educational limbo. The competencies acquired provide no clear paths for graduates to follow to the next higher level of training. Junior secondary schools are supposed to be feeder schools for the Belize Technical College (third and fourth forms), yet many students who are accepted at the College must begin their courses as if they never had prior preparation. Secondary school graduates who participate in vocational-technical education have few alternatives to continue their careers of study beyond beginning competence.

**Conclusion I: System-wide, the problem of vocational-technical linkages is a major problem blocking the development of an (externally) efficient vocational-technical education system. At present, Belize has a series of historically-developed vocational-technical components waiting to be organized into a rational and functional vocational-technical system.**

Vocational-Technical offerings are in the form of topical courses rather than competency-based programs. This has made it more difficult to develop occupational

preparation programs based upon business and industrial competencies. Topically-based courses may or may not lead to a competency in an identifiable Belizean occupation. An individual who completes the course may or may not have all of the competencies required by Belizean employers; thus, the often heard lament of Belizean employers that "Students graduate from school, and we still have to train them. They don't come to us with the right skills or enough skills."

**Conclusion 2: A competency-based program leading to identifiable Belizean occupations is necessary if Belizean vocational-technical education is to meet the needs of business and industry.**

#### **G. Conduct of the Assessment**

In order to place the problems of vocational-technical education into the overall Belizean educational context, a series of preliminary discussions were held with the leadership of the church-state school system. Meetings were held with the Minister of Education, the Permanent Secretary, the Principal Education Officer for Secondary School, and the head of the new Vocational-Technical Education Unit. They reiterated the importance of vocational education to the Government, second only to primary education.

Meetings were also held with the General Managers of the Roman Catholic, Episcopal, and Methodist schools.

All of the leaders thought that there were too many educational innovations taking place and that it was time to assess, synthesize, and apply the results of the projects. It was not a "back to basics" sentiment that was expressed, but a recognition of a need for more planning and coordination to make the outcomes of innovations work for the improvement of the system.

To assess the opinions of Belizean professionals involved in vocational-technical education, nine of the school principals were interviewed in their schools. Additional meetings were held with three secondary principals and 17 primary school principals. Meetings were also held with four directors of nonformal vocational-technical education programs.

## H. Findings, Analysis and Conclusions

The following findings are based upon the responses of principals to the questions in the interviews and a comparison of those answers with the findings of previous recent evaluations. All of the answers are subjective judgments by experienced individuals. Most, but not all of the answers were consistent for each respondent. There seemed to be general agreement among this heterogeneous group of respondents as to the general impact of vocational-technical education on the lives of their students and their communities.

### 1. Academic Achievement of Students:

Four principals believed that their students do as well as students in the academic schools; five did not. The standard which all used to measure success were the examinations the students took.

### 2. Occupational Skills of Students:

The principal of the Belize Technical College stated that a large percentage of graduates got jobs except those from the villages and district towns where jobs in their fields were not available. Other principals stated that occupational placement was either not the goal of their programs or that the academic students got all of the jobs. Even if the students were well prepared, and many were not, the skills would be of little use to the students if there were not enough jobs.

### 3. Earnings of Students

Students from Belize Technical College were regarded to earn higher salaries than students without their credentials; however, the great majority of the principals said that vocational-technical students' earnings were not higher than untrained workers in similar occupations. One reason for this may be that many of the students were in practical-level or orientation-type programs, and had not received truly occupational-level training. Time and again it was stated that employers prefer graduates with academic diplomas or who had passed the Caribbean Examination Council examinations over vocational students. Again, however, people cannot get jobs when there are no jobs available.

4. Contribution to Human Resource Base:

The Technical College contributes directly to the human resource base in Belize City. Several of the other principals cited cases where students had moved into good jobs; however, these cases were few. This may have been partially due to a lack of real information on what happens to graduates. Several of the principals said that so many young people went to the United States, Great Britain, Mexico, or other countries after their studies in Belize, that they thought that this was a serious brain drain. Several instances of overloading the local market with commercial graduates were noted.

5. Community Support:

There is virtually no support from the local communities for the vocational-technical schools. In some cases, this may be because it is hard to define the school's community. Schools may be isolated in a rural area, an urban area, or simply far from the students' homes. There is the usual fund-raising and scholarships, but overall, there is very little help. The two exceptions to this are in Orange Walk District, where the Technical High School gets help, and the Junior School of Agriculture which had a great deal of help from its community in getting started.

6. Development of Leadership Skills Through Clubs:

No occupationally-oriented student club has been organized at any of the schools.

7. Occupational Awareness:

Students receive some very brief and basic information about various jobs related to what they are studying. Some schools have a career day once a year.

8. Training Opportunities:

There seemed to be little doubt in the principals' minds that training opportunities are increased substantially by vocational-technical education and training. The Technical College has more applicants than it can accept as does the Belize College of Agriculture. There is a considerable access problem for students in rural areas. The cost of room and board in another city away from their family's home is usually prohibitive. This is also an equity issue since the schools that offer the fall preparatory programs are all located in urban areas.

9. Job Access:

Except for graduates of Technical College, job access for men and women was not significantly increased by participation in vocational courses. The point was made several times that graduates might have a better chance at a job than a primary school graduate, but this was due not to the fact that they had some occupational training, but to the fact that they had a high school diploma. If there are no jobs open, access becomes a moot point.

10. Race, Class and Sex Discrimination:

There is little racial discrimination in Belize; however, some sexual and class discrimination does exist. Vocational-technical education has done little to remove the barriers for men and women to enter occupations which were not traditional for their sex. At this point, the vocational-technical system may even contribute to occupational stereotyping. In several instances, vocational-technical education was making it possible for participants who would otherwise have been excluded from further education to continue. To the degree that the poor are more likely to be academic underachievers, vocational-technical education has given some poor children another chance.

11. Responsiveness to Business/Industry:

None of the principals stated that the vocational subjects taught at their schools were selected in response to a specific need or request from business or industry. The Technical College principal said that he tried to forecast what business/industry needs might be. Most of the subjects were being taught because the Ministry of Education believed that they would help the economy. None were based upon either manpower data or business/industry advisory committee contacts.

12. Vocational-Technical Curricula and Instructional Materials:

Very few of the schools had adopted any aspects of competency-based vocational education programs, including: objectives, tests, instructional materials, and self-paced instruction. There were a few exceptions which were involved in testing the Caribbean Examination Council modules, and one school, Escuela Secundaria Mexico, had obtained entire sets of competency-based materials from the United States for several of their courses.

13. Vocational-Technical Teacher and Administrator Training:

The impact of the USAID Training for Employment and Productivity project in providing in-country and out-of-country in-service training for vocational-technical education teachers was cited by several of the principals. Many of the teachers have some subject matter expertise from formal training in their areas, but few have learned teaching methods appropriate to competency-based education and training. Only one principal had any understanding of competency-based terminology.

14. Facilities, Equipment and Supplies:

There is a serious space problem in most of the schools. Facilities are in obvious need of maintenance. Tools and equipment are old, worn, or non-existent. Furniture is a problem in many of the schools; however, no principal reported any problem in obtaining supplies, which they pay for through funding efforts of their own.

15. Placement and Follow-up of Students:

No occupational placement services are available to students in any of the schools. Neither are there follow-up efforts to find out what happens to students after graduation.

16. Program Evaluation:

Except for one school, no regular evaluation of the school programs is made. Typically, the success of teachers is judged by how many students pass their written examinations.

17. Additional Conclusions:

The lack of support provided to the existing vocational-technical programs by the Ministry of Education is simply a lack of resources and not a lack of interest. Unless there is a major change in the MOE's resources, even with some savings from a more efficient system, the Ministry will not be able to successfully expand into new vocational programs or schools.

I. Recommendations

The basic recommendation which comes from the findings and conclusions from the assessment of the Belizean vocational-technical education system is that the focus

should be on increasing the quality and efficiency of the system rather than on expanding the occupation preparation level of the system. The Ministry of Education needs to develop an educational strategy which defines the relationship between the academic education programs and the vocational technical education system. Also, the Vocational-Technical Education Unit needs to outline the linkage among the several levels of vocational-technical education so that the lower levels feed into the the upper levels, thus creating what can be called a true system of vocational technical education. The system must be developed on a competency-based program structure leading to identifiable Belizean occupations so that the vocational-technical education meets the needs of Belizean business and industry.

The recommendations to USAID are based on the above and are presented in three scenarios:

1. The most ambitious which requires the most resources.
2. One that is moderate in both its ambition and resource requirement.
3. One that requires the commitment of the least resources, but which contains the most essential elements.

#### Scenario I: Recommendations in Order of Priority

1. Support the development of a planning unit within the Ministry of Education so that the Ministry can establish a sound educational strategy which defines the relationship between academic education and vocational-technical education and makes possible realistic decisions on the allocation of resources. The first task of the planning unit should be to develop a national educational plan. Until such a plan is established, any vocational educational plan should be tentative until it can become an integral part of the national education plan.
2. Support the development of an on-going in-service training system for vocational-technical education teachers and administrators. Such a system shall operate through the Belize Teachers' College and the Vocational-Technical Training Unit of the Ministry of Education, and should contain the following elements: self-directed learning, the use of master teachers as role models and guides, demonstration sites, as well as in-service workshops.

3. Support a gradual development and institutionalization of pre-vocational training in primary schools using the Relevant Education for Agriculture and Productivity (REAP) Program as a model.
4. Support the Ministry of Education's Vocational-Technical Training Unit in its efforts to develop linkages among the levels of vocational-technical education and to establish a competency based program.
5. Help the Vocational-Technical Training Unit of the Ministry of Education rationalize vocational-technical student learning materials through the adoption of an approved materials list. This involves helping the unit to obtain samples of available vocational-technical instructional materials.
6. Help the Vocational-Technical Education Unit to develop linkages between vocational-technical education programs and business/industry.
7. Support the establishment of supplementary (on-the-job, upgrading) vocational education programs at appropriate schools or centers.

Scenario 2 includes all the above points with the exception of points six and seven. Scenario 3 includes just the first four points of scenario 1.

#### IV. AGRICULTURAL EDUCATION

##### A. Introduction

The Government of Belize recognizes agriculture as the nation's basic industry and the most important sector of the national economy. Agriculture supplies essential food for its people and is the largest source of employment and largest contributor to the country's Gross Domestic Product (GDP). Agricultural expansion and development is given high priority in the national economic plan, and the country recognizes that for this to occur, it must develop the human resources involved in the agricultural sector. As the lead organizations in agricultural education, the government recognizes the Extension Services of the Ministry of Agriculture and the Belize College of Agriculture. In a country so heavily dependent on agriculture, all educational activities and institutions, and particularly those in the rural area, should make a contribution to agricultural development.

##### B. Historical Background

Since the future development of Belize is so dependent on increasing its productivity and using more fully its large amount of arable land not currently being worked, educational reformers saw early on the need to relate education to agricultural development. As far back as the 1930's, an attempt was made to establish school gardens. The program, however, was not continued.

In 1969 the idea of relating education to agriculture was raised again, this time by C.P. Habito, a Food and Agriculture Organization (FAO) Advisor to the Ministry of Education. He said the elementary agricultural instruction in Belize should help to develop favorable attitudes towards farming as a vocation. He suggested some agricultural content be integrated with the other areas of the primary schools curriculum. For the first two years of the secondary schools, he recommended the introduction of a course in agricultural orientation. He said that a two-year pre-vocational secondary school course should be no more than an orientation course.

Habito's recommendation did not cause much action; any activities which resulted from his study left very few traces. It is possible, however, that since his material is still to be found in the Ministry of Education, it became the basis for the agricultural education programs which started up in the mid-seventies.

### C. Present Agricultural Education Programs

Formal education programs in agriculture have the same three levels found in the other vocational-technical education programs. At the primary level, the Relevant Education for Agricultural Production (REAP) program uses the students' environment to make the instruction relevant. In the rural area, its goal is to create an understanding and appreciation of agricultural occupations. At the secondary level, the Junior School of Agriculture provides some basic agricultural skills training. Some of the four-year high schools have added practical courses related to agriculture. A project is now being contemplated to develop school farms at five selected high schools, which would aim to develop business-like farm procedures, teach and practice diversified agriculture, upgrade or introduce allied or supportive vocational subjects as an integral part of the school farm, and integrate the school farm with the micro-economic and community systems surrounding it.

Most of the agricultural education programs at the secondary level are pre-vocational, but if the current plans are carried out successfully the programs could be said to be vocational.

At the tertiary level, the only agricultural education institution is the Belize College of Agriculture. Its programs are at the vocational level and are designed to prepare the students to be extension workers or other officers in the Ministry of Agriculture, technicians needed in agriculture by the private sector, or farmers.

#### 1. The REAP Program

The Relevant Education for Agricultural Production (REAP), earlier entitled the Rural Education and Agriculture Program) was initiated by the Government of Belize in 1976 with the assistance of CARE/Belize, the U.S. Peace Corps, and Heifer Project International. The goals of REAP were to increase basic modern agricultural and career knowledge and skills and to cultivate positive attitudes towards agricultural activities and rural life in general. The curriculum of the REAP schools was to integrate the traditional subject areas of math, science, language and social studies with agricultural knowledge, skills and attitudes so that the students could see applications and practical reasons to learn what was being taught. The concept was not to neglect the traditional subject areas but to make them more relevant so that they would be easier to learn and be more useful and used.

A Belize Government publication in 1976 clearly established the goals and objectives of the program:

". . . (to) initiate and evaluate efforts to enrich the rural primary school experience and, in particular, attempt to prepare the child for a potentially more rewarding and attractive role in the countryside. The project will approach the difficulties with a new educational philosophy that through the development of new, more relevant curricula, the rigorous training of teachers with an integrated rural development orientation, and the establishment of a school farm which will serve, in effect, as an outdoor laboratory, the child can become better equipped to cope with rural life, both to the child's own benefit and, in helping him participate intimately in developing the agricultural basis of the national economy, to the benefit of Belize, as well."

"The thrust of the effort will be to integrate the different syllabuses with the rural environment, to make each subject taught bear directly upon the real world in which the children live and the problems they face there."

The program was started as a pilot project in eight schools but through the years has grown until now 65 primary schools, church schools of various denominations as well as government schools, have incorporated the REAP program.

The REAP Program expanded gradually, trying not to spread too thinly the resources allotted to it. By 1979 the leaders in the program believed it to be ready to expand into all six of the Belizean Districts with at least 23 schools. By 1982 the program was to be expanded to as many as 65 schools. From the beginning the Ministry assigned a REAP Education Officer to coordinate the activities. By 1978 courses with REAP methodology were offered at the Belize Teachers' College, and in 1979 these REAP courses received full accreditation at the University of the West Indies.

The program was started by an Advisory Committee which included representatives of the Minister of Natural Resources (Agriculture), and the Minister of Social Welfare in addition to a representative of the Minister of Education and representatives of the international donor agencies involved. In 1981, the Advisory Committee decided also to establish REAP District Councils which could both support the REAP schools and facilitate communications among those schools.

Annual evaluations of the program were made in order to make mid-course corrections. The evaluations covered these aspects: REAP students' performance on the Belize National Selection Examination and the extent to which students acquired REAP-oriented knowledge and skills not taught in the traditional curriculum. A major evaluation at the end of nine years, which was performed by Dr. Romeo Massey as were

the other evaluations, found no significant differences between the accomplishments of the REAP students in the traditional subject areas compared with the achievement of students not in the REAP program. This confirmed the findings of previous evaluations, and the evaluator concluded that students participate in the REAP program without any loss in academic achievement, and may even increase their academic achievement while participating in that program. As to achievement in REAP program concepts, he found that the students had acquired new knowledge and skills in rural-oriented and agriculturally-oriented subject matter that they would not have received in the traditional curriculum.

## 2. The Junior School of Agriculture

The Junior School of Agriculture grew out of the REAP program. Two individuals who were involved in the REAP program (a representative of the local Rotary Clubs who was active in the program through funding that was being provided by Rotary International, and a Peace Corps Volunteer assigned to the REAP program) were concerned about the need for activities to follow-up on the REAP program that would encourage children to stay on the land and take up farming. They were able to locate a primary school which was no longer needed and not being used and began to try to interest the Belizean government as well as international donors in establishing a secondary level vocational agriculture program. The government was supportive although it was not able to commit funds at the time for the school, but an \$85,000, two-year grant was received from USAID. The school buildings were renovated, the land for a school farm was cleared, and an appropriate curriculum was designed. The school started with 25 students, all boys, but subsequent class size was increased to 40 and includes girls. The school is now in its fourth year.

The vocational curriculum covers the full range of agricultural activities, the various crops suitable to the region, livestock production (cows, swine, poultry), beekeeping, post-harvest storage, and tree crops.

Many of the graduates of the school go on to finish secondary school at the Orange Walk Technical High School, but some are working on their family farms. The program is too new to ascertain how many of the graduates will work on farms. On the other hand, the school provides the students with an opportunity for a secondary education that they might otherwise not have.

### 3. Belize College of Agriculture

Heading up the formal agricultural education program in Belize is the Belize College of Agriculture. It was started in 1977 so is now in its eleventh year. At first it offered a one-year post-secondary program leading to a certificate, but starting in 1983 it increased its program to a two-year diploma course.

The school is located on the Ministry of Agriculture's Central Farm and operates as the academic adjunct of the farm and has 1300 acres for its operations.

The Ministry of Agriculture finances the school, but it maintains a relationship with the Ministry of Education. The Chief Education Officer of that Ministry is one member of the Board of Directors which is in charge of the institution. The Board also includes the Minister of Agriculture, representatives of agro-industries, two teachers and a lawyer.

The staff, in addition to a director, has four full-time instructors and fourteen part-time teachers. The full-time instructors are fully qualified to teach on the tertiary level, and the part-time staff members represent much of the agricultural leadership in the country. The Director, Moses Cal studied at the Zamorano Pan-American School of Agriculture in Honduras, the University of Florida and the University of Kentucky, which awarded him a Master's Degree.

The facilities of the college are adequate but not lavish. The college has sufficient faculty offices, classrooms, laboratories, dormitories, staff housing and other living accommodations. Its library is useful but will require strengthening. The facilities were funded in large part by a BZ\$ 750,000 soft loan from the British Government, which now also furnishes a Technical Advisor. To round out its facilities, the school could use a farm mechanics shop. The plans for this are completed, and the school is seeking a funding source to build and equip the shop.

One of the full-time instructors, in addition to the director, studied at the Zamorano College, and the program is based largely on that of Zamorano with a balance between academic and field work. From breakfast until 10:30 A.M. (wake-up time is 5:30 A.M.) the students work in the field and from 12:00 Noon until 4:00 P.M. are in the academic courses. The field work is divided among agricultural crops, livestock production, and farm engineering. The academic courses cover these areas as well as mathematics, chemistry, biology, and communications. The school year consists of three thirteen-week trimesters. During the summer vacation the first-year students have an internship program in various agro-industries throughout Belize. The second-year students, in addition to the field and course work, do a personal project each trimester.

Currently the institution has a capacity of 68 students, selected on a competitive basis from high school graduates. This year, out of 128 applicants, 78 were deemed qualified and the top 36 were selected. Because the program is rigorous, the experience is that four or five will drop out quickly so five alternate students were also selected. Manpower estimates are that the school now furnishes the number of trained agricultural technicians that the country can absorb. The students pay fees of BZ \$30 per month, but some limited scholarships are available.

The school now has produced about 200 graduates. Some 80% are active in agricultural pursuits. Of these, slightly less than one-half work in the Ministry of Agriculture (extension agents, quarantine agents and other technicians). Ten percent are studying abroad, and a few are on farms. The estimate is that about 5% of the graduates emigrate.

The country could absorb more of these agricultural technicians if they were to become farmers. The Ministry of Agriculture offers 50 acres of farm land to the graduates if they can obtain the necessary funds or credit which would enable them to work the farm. Since the graduates are poor, they have little chance of meeting this requirement.

Although the college has a rigorous program and has established relationships with U.S. universities, graduates as yet have not been able to receive full two-year credit for their work. Since its program is built on that of the Zamorano College, it might be able to obtain the special consideration that some U.S. universities offer for Zamorano graduates. The Belize College students, who attend U.S. Colleges of Agriculture, do very well academically, and it appears that they are unnecessarily required to duplicate some of the coursework completed in Belize.

The Belize College of Agriculture has excellent facilities for special workshops and seminars, but these are now available only during the summer vacation period when the student dormitories are vacant. During the summer the facilities are rented out for meetings of various outside groups. The college does not control the meetings, and in most cases they are not related to agriculture. This does not take full advantage of the college's resources. The institution would like to have a hostel which would make it possible for the college to offer special agricultural workshops year-round. To do this it would also need an additional staff member and a conference budget from the Government.

The College and the Central Farm have relationships with the major world agricultural research stations (IRRI, CIAT, etc.) and test seeds from these various institutions for their effectiveness in Belize.

#### D. Other Agricultural Education and Training Activities

In addition to the formal agricultural schooling that is being offered, several other less formal education programs are operating to upgrade agriculture in Belize. As pointed out in the introduction, the Ministry of Agriculture places great emphasis on the Extension Service as well as on the Belize College of Agriculture.

##### I. The Extension Service

The Extension Service of Belize has two primary objectives: to provide agricultural education and to offer supporting services for the farmers. The educational objective is to teach farmers cultural practices, technology, farm management, and marketing. The programs are to include crop and livestock combinations suitable to farming systems that will increase income, decrease losses and maintain the ecological stability of farming communities. This education is to be carried out by an Extension Supervisor of Education in each district with an Extension Officer in each of 32 zones. It has not been possible to fill all the positions.

A review of the Extension Service capability in 1987 made the following recommendations:

- "Apply resources in key areas for significant impact.
- Strengthen linkages and processes to reach farmers.
- Strengthen linkages with research.
- Guide extension efforts by established government policy.
- Continue to strengthen processes for planning and implementation.
- Draw upon outside opportunities and options in areas of high potential."

Extension work is being done by several organizations in addition to the Ministry of Agriculture: the Belize Sugar Industry, Cane Farmers Association, the Sugar Board, the Citrus Growers Association, the Belize Livestock Producers Association, the Banana Control Board, and Hummingbird Hershey (cacao).

## 2. Private Voluntary Organizations

Some private voluntary organizations, which are involved in rural development activities, provide instructional opportunities for their clients. One of these is the Belize Enterprise for Sustained Technology (BEST). It has an Operational Program Grant from USAID/Belize; and during the past three years, it has served 20 client groups, primarily small farmer cooperatives. In addition to providing training in management, accounting and marketing, it has provided advice in agricultural techniques. For example, it has helped the Southern Beekeepers Cooperatives find ways to cope with Africanized bees.

The Christian Reformed World Relief Committee also has rural development programs in seven rural villages in Belize. In addition to community education and management training, it explores ways to increase the small farmers' agricultural production.

## 3. Nonformal Agricultural Education Activities

Three nonformal agricultural education agencies are also providing services in Belize: the 4-H Club, the Youth Development Centre, and a project entitled "Gaining Relevant Orientation to Work, Training, and Help" (GROWTH). The latter is an outgrowth of the REAP program and is sponsored by the Government of Belize, CARE/Belize as well as by private voluntary organizations, private sector enterprises, and the U.S. Peace Corps. Its objectives are to attract persons to take up careers in agriculture; to train young people to improve their knowledge and skills in their selected careers; when necessary, to make personal loans so that young persons can start their own business; to keep the youth of Belize gainfully employed at home; and to help youth to make profits in the production of food. Belizean young persons between the ages of 14 and 24 who are interested in a career in agriculture or rural activities are eligible to participate. GROWTH provides a three-month activity-based training course in agricultural and rural pursuits relevant to the home area of the participant, including instruction in basic business and technical management.

GROWTH started as a pilot project in the Corozal District in 1986 and by 1990 is expected to cover all six districts. At least 1500 youths are expected to participate in the program by 1990. Examples of the projects now underway are cattle fattening, chicken and swine production, vegetable production, and citrus production. Since credit facilities are almost non-existent for Belizean young people with no assets, the project establishes a loan fund to be used as a guarantee for Barclays Bank to issue small loans to participants with which to start their agricultural projects.

The 4-H Club is similar to the clubs with that name in the United States. It operates under the sponsorship of the Belize Ministry of Social Services and has its headquarters on the outskirts of the capital, Belmopan. It provides opportunities for youth to learn about agricultural pursuits and to develop leadership capabilities.

Another organization operated by the Ministry of Social Services is the Youth Development Centre, a small institute which offers youth a one-year program in agriculture.

#### **4. USAID/Belize Agricultural Projects**

USAID/Belize Agricultural Projects have training components recognizing that training is a requisite to agricultural and rural development. For example, in the USAID project to assist in the development of cacao production, it was found necessary to offer special training for the women of the farm families since they are to help in the processing of the cacao.

#### **E. Findings and Recommendations**

1. Overall, the REAP program has experienced considerable success since its inception in 1975. Emphasis should continue to be given to the program, and inter-ministerial and inter-agency guidance should be continued in order to harness all possible human and material resources for future improvement in and support of this program. It is envisaged by the Ministry of Education eventually to have all primary schools in the program. It is recommended that as a prior step to expansion, emphasis be given to consolidating existing REAP schools to ensure that the complete REAP program is being implemented. The expansion into other schools should be gradual, based on careful planning, the availability of appropriate material and human resources, and with a specific time frame for in-service teacher training. Since the Relevant Education for Agricultural Production (REAP) program has been so successful, it should continue to expand, and since the Peace Corps has been instrumental in the success of the program, it is recommended that USAID continue to support the Peace Corps, to ensure that volunteers will be available to assist in the expansion of the program.

2. The Belize Junior School of Agriculture is providing basic agriculturally-oriented skills to students in the Orange Walk District, who otherwise might not have the opportunity to continue their schooling beyond the primary school. It is recommended

that the school be a model for possible replication in another district where rural children do not have access to secondary schools to test the school's wider applicability. USAID should consider a grant similar to that used to establish the Junior Agricultural School to replicate the institution in another deprived rural area to test the possibility of this as a model for expanding secondary education to rural areas.

3. At present five high schools are in the process of planning to establish school farms as a part of their basic instructional system. The establishment of school farms is a complex venture requiring considerable human and material resources. Since such resources are limited, it is recommended that one of the schools be selected to operate on a three-year pilot basis. USAID should consider a project to assist the Government of Belize in providing the human and material resources deemed essential for a pilot school farm and vocational agriculture program.

4. Several private organizations and private voluntary organizations are providing training support for poor farmers which enable them to be more productive. When such organizations have been successful in these ventures, it is recommended that USAID support them so that they can expand their efforts.

5. The Belize College of Agriculture is operating successfully as a two-year agricultural college and has adequate facilities, but these are being under-utilized and are not being used by Extension Service to introduce agricultural innovations to the farmers. It is recommended that dormitories be built and a program be developed so that the Extension Service can provide short workshops year round to farmers to upgrade their knowledge, skills and production. Therefore, it is recommended that USAID consider assisting the Ministry of Agriculture to build a hostel and to develop appropriate workshops improving the effectiveness of the College and the Extension Service.

6. The USAID, Belize-Ministry of Agriculture projects now being implemented have training components. Because having appropriately trained human resources is so essential, it is recommended that even greater emphasis be given to training in new projects. The primary training needs are to teach farmers how to use improved varieties of seeds and animals and improved farming methods which are available and appropriate for Belize, to improve farm management practices, to find better marketing processes, and to find ways to reduce post-harvest losses.

## V. MANAGEMENT TRAINING

### A. Introduction

Management training is an amorphous and open-ended area. It can include everything from the training for strategic planning for top executives of large corporations and governments to basic accounting and marketing skills for micro-entrepreneurs. Management abilities are as important as technical skills in making a business or government department operate effectively. These abilities are vitally important for national development since they can be so helpful in mobilizing the energies of individuals and groups throughout the society.

In 1985, Boyer in his study in Belize, found that "there are at present no management or business training programs currently being offered in Belize, in either the private or public sectors, ...only a few scattered courses." Since 1985, things have improved, largely through USAID support. This report will try to ascertain where things are now in regard to management training and where they might go from here.

### B. Public Sector Management Training

Need: The various Government of Belize departments and agencies need to be better managed and to operate more effectively.

For some years recommendations have come from various sources that attention should be given to improving management in the Belizean public sector. Historically, management training has been provided by sending managers abroad on scholarships. This is expensive, and such training courses do not relate closely to the Belizean context. Moreover, when learning is by an individual from an institution he/she has the additional responsibility of conveying to colleagues relevant aspects of the experience and advocating any necessary reforms from the lessons learned.

Opportunities are now provided locally through the support of international donors and the Government. The existence of the Belize Institute of Management (BIM), the University College of Belize and other local training institutions have provided local management training options to improve the governmental system as a whole.

Belizean public servants vary greatly in background. Some are very well educated and prepared while others have limited formal academic or practical preparation. Some officials with only a high school education serve at senior levels. Many officials have had no previous management experience. Even some who have had previous experience or on-the-job technical preparation, have had little training in supervising or managing others, or in making large systems function effectively.

#### Activities:

A main function of the Belize Institute of Management is to train officers from various Belizean Government boards and agencies and parastatal organizations. The participants range from supervisor to the highest level of management. The courses cover many basic management areas as put forth by the American Management Association some years ago.

Public sector management training is also offered within the Establishments Ministry independently or in conjunction with other local institutions. Government managers are still sent abroad for training and advanced degrees when possible.

The Training for Employment and Productivity (TEP) Project has made possible management training for government personnel. Some programs have been under the Belize Institute of Management while others have been conducted directly by the government in conjunction with the special training advisor provided under the project.

#### Issues:

The most pressing issue regarding management training in the public sector is cost. Even at the Belize Institute of Management's current subsidized fee level, the cost of training is prohibitive for the Government of Belize without external support. The educational system of Belize, because of the pay scale for officials as compared to salaries in the private sector, produces very few highly trained individuals for the public sector. Providing in-service training is costly, but it is more cost-effective than pre-service training and more relevant. It is also more likely to have a greater organizational impact since an entire working team or group can be trained together.

USAID would like for the Institute of Management to be self-sufficient, but this would require that the Institute charge higher fees for public sector training. Funds from the USAID TEP Project to pay course fees are limited. To provide the required management training for the public sector, subsidies will continue to be needed.

Another issue is how might management training influence the system so that it functions more effectively and government officials are enabled to carry out their responsibilities more expeditiously. In addition to helping individuals to become more capable, management training can encourage the individuals in a system to change their behavior in coordinated ways which helps all of them and improves the functioning of the system as a whole. Under the TEP Project, some organizational development-type training efforts are possible. Organizational development activities hold promise since some problem areas involve a lack of collaboration or coordinated efforts by related (or potentially related) parts of the government.

### C. Small and Micro-Enterprise Development

Need: Large numbers of small and micro-businesses around the country need management training and technical assistance if they are to succeed and operate efficiently and effectively.

A large majority of Belizeans in the private sector are involved in very small or micro-enterprises. These businesses often lose opportunities for increased profits and expansion because their owners do not know and cannot use basic management systems and techniques. The managers of these enterprises are obvious targets for management training in order for them to improve these businesses but also to promote national development.

The Boyer report listed 147 micro-enterprises in Belize, but other estimates give a much higher number, rural and urban and industrial, agricultural or mercantile in nature. Individuals in these small business may be some of the poorest of the Belizeans. The entrepreneurs of the micro-enterprises make up a group of potential management trainees which is unlikely to run out, despite the small size of the population of Belize.

#### Activities:

The Belize Institute of Management (BIM) has offered courses around the country for micro-enterprise managers and has had mixed responses. It is experimenting to try to find appropriate times, places, curriculum, and fee structures for training for this group. It has been difficult to find a formula that works consistently. The Institute has an interest in providing appropriate training for micro-entrepreneurs and the country needs to have the training provided.

The National Development Foundation of Belize (NDF/B) has been providing loans and also training and technical assistance to small businesses, enterprises with less than ten employees, since 1983. The NDF/B estimates that it has had some 450 clients who have received credit and support. The NDF/B provides training to other groups and encourages its clients to bring others with them when they receive their training. The loans range between Bz\$500 and BZ\$25,000 and average Bz\$3,500. The default rate is estimated at six percent. The NDF/B has received excellent evaluations. One stated, "(it is) a solid, well-managed development financial institution with dynamic leadership and a positive track record...(and) has developed an important network of relationships with a number of international donor agencies and similar development organizations in other Caribbean Basin countries." But the same evaluation concluded that it "will not be able to achieve self-sufficiency by 1990 without additional alternative funding activities to supplement interest income."

USAID supports the NDF/B as does also the Government of Belize and the Pan American Development Foundation. In addition to the USAID NDF/B project, the NDF/B is proposed to be the administrator of a Bz\$400,000 revolving loan fund for training at the Belize Institute of Management. The NDF/B provides technical assistance for its clients "the moment they walk through the door." Each client participates in a two-day seminar on a variety of small business topics followed by monthly counseling visits. It holds about 12 client seminars per year.

The Belize Enterprise for Sustained Technology (BEST) is a private voluntary agency which receives an organizational program grant (OPG) from USAID to provide training and technical assistance for cooperatives and other groups of small farmers. It has a good reputation among its client groups, but its services are expensive for the type of clients that it serves.

Other organizations that provide training, including management training for cooperatives or similar organizations of small farmers, are the Belize Institute for Training and Development, the Credit Union League, the Council of Voluntary Social Services and the Cooperatives Department of the Government.

#### Issues:

The main issue concerns how the several organizations which offer management training for micro-entrepreneurs can work together and avoid duplication of effort. The National Development Foundation of Belize (NDF/B) has been working with small and micro-businesses since 1983. The Belize Institute of Management desires to serve this

group, but its activities have had mixed results. The need for such training is large enough to take advantages of the service of both of the organizations if there is an effective coordination between them or at least a healthy competition.

In the short run, it would seem most useful for the National Development Foundation to do the training for small business operators and for the Institute to concentrate on the areas which have been its primary and successful foci: training various levels of the more traditional managers. But as a small country, the estimates are that Belize has in this management trainee pool only 3,000 in the private sector and 1700 in the public sector. At the present training rate, it will not be long before the Institute has trained most of these managers and then will be looking for new markets. Small business entrepreneurs are the most obvious market. This might put the Foundation and the Institute in direct competition.

#### **D. Middle Level Management**

Need: More qualified middle-level managers are required if the government and particularly businesses are to expand.

Many of the government and business leaders who were interviewed said that the lack of trained middle-level managers was an important constraint to economic expansion. Primary management preparation in Belize is considered adequate, and some Belizeans are able to study abroad for advanced degrees. The biggest gap is in the middle level: individuals to become department heads, supervisors and assistants to the top managers.

The preparation of middle managers involves both a management and technical component. In addition to being able to supervise and manage others, middle managers usually are expected to have special expertise in the tasks they are supervising. Training needs to involve both the management skills and related technical areas.

#### Activities:

The Belize Institute of Management is conducting a range of in-service programs for both public and private sector middle-level managers. St. John's College Stann Creek Ecumenical College, and Corozal Community College have two-year post-secondary programs in business leading to an Associate of Arts Degree. The University College of Belize has a B.S. program in Business Administration with four recent graduates and 75 students at present. Some private companies conduct their own training activities for

the employees who are to become middle-level managers and for others to move up to positions of greater responsibility.

Doubtlessly, there are other companies involved in such training, but in this study only two were identified: Brodie's, a Belizean company, and Belize Mills, a subsidiary of Maple Leaf Mills of Canada. Brodie's is beginning short one-hour seminars to increase employers' professionalism. These are conducted by the Personnel Manager. Belize Mills conducts extensive on-the-job technical training and supports with funds and leave time a variety of self-improvement courses.

The Belize Export and Investment Promotion Unit (BEIPU) has up to now focused on promoting investments in Belize. It will now turn more to its complementary function of promoting exports. This will probably require training and technical assistance. The Unit will need to coordinate with the Belize Institute of Management on management training. For the Institute this is a natural area into which it can expand with a good potential for increasing its income. Another good source of training and technical assistance as the Unit expands export activity is the International Executive Service Corps, a United States organization made up of retired executives who volunteer their services to lesser developed countries.

#### Issues:

Graduates of programs to develop middle-level managers sometimes have a difficult time in getting placed in Belize. St. John's College cannot always find jobs in private business for its graduates with Associate Degrees in Business Administration. Some reasons given are their youth, their unrealistic appraisal of their true worth, and the inadequacy or incompleteness of their preparation. The abilities needed by middle-level managers go beyond learning basic management skills and involve the attitude and the capacity to analyze and to understand the big picture. These may be capabilities that are not developed in academic programs alone.

Top level managers in Belize do not have a high level of confidence in the possibilities of academic training to strengthen business operations and institutions. Also, mid-level training offered in the Associate Degree program may make the individuals more useful in some ways, but it also makes them more expensive and more demanding. Creativity and initiative gained through training are advantages only in institutions which value these qualities and are in a position to make use of them.

Individuals with university degrees in business administration present even more difficulties in this regard, although more and more of these are being employed in Belize both in the public and private sectors. Unfortunately, university graduates often find what they believe to be better opportunities abroad.

Of the four graduates of the University College of Belize, one is back in her home country, India. One is working for an accounting firm in Belize, and two are studying in Master of Business Administration programs abroad. The latter two may return to Belize. The University here would like to have them on its faculty, but the odds appear to be against their returning.

Presently in-service on-the-job training for middle-level managers appears to be the most effective. Training is more valued if it is provided within the context of the trainee's job. Ideally, the training is provided for the group as a whole and geared toward organizational improvement in addition to individual skill building.

#### E. Tourism Training

Need: As the tourist industry expands and is strengthened, it requires more individuals with management and technical skills.

A major push is taking place to attract more tourists to Belize. Several hotels are making major expansions and a large new hotel is under construction, but the expansion is slowed by the lack of qualified employees for new positions and the current skill level of individuals working in the industry. Hotels and restaurants need more and better trained staff. Tour groups have, in some cases, been bringing in their own tour guides. Belize must have its own trained people, but no formal comprehensive training program for this important activity currently exists.

#### Activities:

The Belize Tourism Industry Association (BTIA) is planning to conduct a six-week program for tour guides using the services of the Belize Institute of Management (BIM). The tourism association has also offered some seminars around the country in various aspects of the tourism industry in collaboration with several U.S. organizations, particularly the International Executives Service Corps. The latter organization, whose consultants are retired U.S. business and professional executives, currently has one volunteer at the Paradise Hotel in San Pedro and another one is due to arrive to provide management training and technical assistance at another hotel. At the present time the organization has 24 projects for which it is recruiting Executive Service volunteers.

The Belize Tourism Industry Association is interested in expanding its training activities and wants USAID support for more training. The Association has a broad and representative membership of the tourist industry. With the help of a tourism advisor from the European Economic Community, the government and the private sector has formed a Tourism Council to coordinate government policy and tourism promotion. The Council is in the process of defining its relationship more clearly with the Tourism Industry Association and the official government agency, the Belize Tourist Board. The latter has USAID funding to research potential tourist resources and to develop promotional materials.

The Belize Institute of Management is interested in management training for the tourist industry and has offered courses related to tourism. Tourism is a priority area in the TEP Project so the Institute recognizes the importance of developing programs in this area.

#### Issues:

Discussions have occurred as to whether the Belize Institute of Management or the Belize Tourism Industry Association itself should conduct tourism training. Both organizations have expressed interest in collaboration, and they are working together in the upcoming program to train tour guides.

The Belize Tourism Industry Association claims 267 members, including many smaller tourism-related businesses. Its cost-conscious membership is concerned about the Institute's training costs and overhead. Additional discussions are needed to reach a consensus between the two organizations to mutually-acceptable roles for each of them.

The Belize Tourism Industry Association has not entered into a project agreement as a direct USAID recipient. Hence the tour guide training activity had to be funded through another organization. A system needs to be developed which makes possible the best contribution of both the Tourism Industry Association and the Institute of Management to the training programs. The Institute has expressed support for a system in which the Association would do much of its own training but would turn to the Institute when its training services are appropriate and cost-effective. This is the system the Institute has worked out with the Establishments Ministry, which conducts some of its own training but turns to the Institute for training programs where the Ministry feels a lack of competence.

## F. Development of the Belize Institute of Management as a Sustainable Institution

Need: In a small country with a limited range of formal educational possibilities, the need for relevant and responsive in-service training to improve the skills of those individuals who have the responsibility for maintaining and moving the country forward is clear.

The evidence is that training in management skills presented by competent trainers at a reasonable cost will be welcomed by both the public and private sectors. Evidence, however, also indicates that finding a way to institutionalize management training programs in a dependable and on-going way can be evasive. The challenge is to develop the Belize Institute of Management to the point that it can provide the most important needed services in a dependable on-going basis without being dependent on one individual or on external funding from any one donor or client.

### Activities:

Clearly the main vehicle for the revitalization, expansion, and institutionalization of the Belize Institute of Management is the Training for Employment and Productivity (TEP) project funded by USAID. The project provides funds to start many activities on a subsidized basis, provides technical assistance and access to a range of human and material resources. The project gives the Institute a chance to expand and solidify its reputation so that it can not only recruit participants for its programs but also expert trainers, who will do training for the Institute in the face of other alternative and, perhaps, more lucrative opportunities.

### Issues:

The Belize Institute of Management has reached the point of being a successful management training institution with its present funding sources. The issue is what will happen to the institution when the USAID funding ceases.

The Institute is charging fees now depending on parts of the actual training costs being subsidized. It was predicted that once the value of its training was recognized, it could charge significantly higher fees, but the concern is that raising fees will result in a loss of demand, particularly from the poorer enterprises who now are having difficulties paying the lower fees. A sliding scale for fees has been considered, but it is doubtful that there is any way that the Institute with its current training levels can produce significantly more revenues. Much of the training is done by the Director and the

Technical Advisor provided by the USAID project. The Director, of course, is responsible for also managing the Institute. This is a temporary approach, and the intense training schedule puts a strain on the Institute's leaders, and takes away time and energy needed to develop strategies for institutionalizing the Institute's activities. USAID might receive a greater return on its investment by putting more emphasis on viable long-range plans rather than on greater short-term revenues. While the cushion of USAID funding exists, it is important to develop more part-time and, perhaps, full-time training staff members so that the Director and Technical Advisor can address long-term strategies.

The viability of any long-term plan for the Institute depends on two assumptions: the availability of local trainers who are highly competent and willing to work for the Institute, and sufficient availability of trainees who need and seek the management training programs offered by the Institute.

A part of the plan for the Institute is to develop local trainers since the use of foreign experts is so costly that they should only be used for the most strategically important training programs. The Institute has trained and used some local trainers, but as yet, this has not developed a dependable source of personnel. The local individuals who possess the necessary competencies often have many other demands on their time and energy. The field of management training and management consulting has not really developed in Belize as a career option which might attract high level people away from other options.

Belize has a small population and the number of managers, as normally defined, is limited: an estimated 3,000 in the private and 1700 in the public sector. At projected rates, the Institute will run out of clients in about three years. The implication of this is that the Institute needs to become involved in training for small and micro-enterprises.

An option is that the Belize Institute of Management reduce its operation and emphasize the training where it has had greatest success. The Institute might also become an international institution offering services to clients in other neighboring countries, but it would have strong competition with training institutions with longer histories. Perhaps, the Institute could establish a niche in the international arena guaranteeing an on-going clientele.

Another issue related to the institutionalization of the Institute is its relationship with the Belize Chamber of Commerce and Industry. At the beginning of the USAID Training for Employment and Productivity Project, the Institute had not received official status. USAID funding had to be funneled through the Chamber. This technically put the

Institute under the Chamber which led to some misunderstandings, which have not been entirely resolved. The Institute has since received legal status and is in a position to receive USAID funds directly.

### Potential Long-Term Markets for the Belize Institute of Management's Services

The Belize Institute of Management has problems in establishing long-term markets. The public sector represents 50 percent of the Institute's clientele, and government counterpart funds for the USAID project now pay for the public sector employees to attend the training programs. Sometimes the government has used the Institute for training courses, which the government could offer itself, simply because it was easier to use counterpart funds rather than tap the government's limited training budget.

The Institute also finds that it is better for it at times to use foreign rather than local trainers since the foreign instructors come from the USAID project and not from the Institute's operating expenses.

The Institute has begun to offer courses in related technical areas which complement the management training. A possible program would be training for computers, but a private organization is well-established in this field. To be successful the Institute will have to select carefully and to offer courses which are not now available elsewhere.

For the present, with the catalyst of USAID project support, the Institute has a good short-term market. An organization like the Institute plays an important role in Belize and, perhaps, in the region.

### **G. Conclusions Regarding the Belize Institute of Management**

The Training for Employment and Productivity Project and the strengthening of the Belize Institute of Management are based on several hypotheses and assumptions which seem to be:

1. Institutions and managers will respond to management training opportunities of sufficiently high quality.
2. The training will make them better managers and support development.

3. Once operating training, the institution will be able to wean itself from dependence on project support and stand on its own financially.
4. The training institution can be the main focus, or at least principal broker, for training in management, tourism, and small business, as well as perhaps other areas.
5. The Belize Chamber of Commerce and Industry is the umbrella organization to serve as an important resource and link to the private sector.

The future evaluation of the Training for Employment and Productivity Project will doubtless check the validity of these, but this study offers these tentative findings.

Hypothesis 1: That institutions and managers will respond to the training opportunities seems quite clearly correct. Courses are over-subscribed. The Institute is in demand for customized activities, particularly in the public sector. The Institute's reputation is largely positive among most of those who have had contact with it.

Hypothesis 2: Data on the effect of the training will have to come from some kind of impact study, which presumably will be a part of the evaluation, or perhaps a later internal Institute activity. People do attend the courses, and probably in part others who have participated recommended the courses to them. Courses are conducted for a number of groups. General data, however, on these kinds of short courses affecting skills development, and skills development affecting organizational performance, is mixed. Management training in many places has gone past the American Management Association approaches of several years ago.

Hypothesis 3: That the training institution can become completely independent is perhaps the most problematic hypothesis of all. It appears itself based on several assumptions:

- Organizations will pay the fees which were estimated in the project plan, at least BZ\$ 200-300 per person short course;
- Local trainers can be identified and recruited, and developed through the understudy approach after fairly few course presentations.

- There will be a steady stream of trainees for the Institutes courses over the long run, which can support its activities on into the future.

These assumptions now appear uncertain. The Institute is quite concerned about the effect raising fees might have on demand. Unless training can be made to appear more central to the organization's success, even the larger firms may not be willing to pay much more on an ongoing basis.

In regard to identifying local trainers, in the U.S. and some other countries, management training and consulting has become a career in itself, attracting people of broad experience in management, psychology and a number of other areas. The skills for successful manager trainers are not clearly defined, but for an individual to become comfortable and effective in this sometimes difficult role generally takes time, experience and support.

Those involved with the Belize Institute of Management's report difficulties in identifying people who are qualified and available on a consistent basis to be trainers in Belize. The process of developing such people is clearly more lengthy and involved than initially envisioned. Complete testing of this part of the hypothesis will take a more systematic and longer-term-oriented human resource development approach than has heretofore been done.

The assumption that there will be a steady stream of trainees is questioned by the Institute's own estimates of the numbers of managers in Belize.

Hypothesis 4: That one training organization could be the main force for the training activities may have underestimated the potential for competition in the training market, particularly after the USAID intervention significantly increased the demand for training activities with its input of resources. It may also have underestimated the differences in the nature of the training required. The National Development Foundation of Belize has been providing training and technical assistance to small and micro-enterprises in the context of credit assistance, a common approach in many countries. Other institutions provide similar support to cooperatives and other specialized client groups. The Belize Institute of Management has thus far had only limited success at breaking into this client group, though it clearly has something to contribute.

It would have been difficult to predict the Belize Tourism Industry Association's increased capacity and interest in training at the time of the USAID project plan. Now

USAID and the Belize Institute of Management find themselves in the position of implementing a training project, which has tourism as a major focus, without the full support of the country's Tourism Industry Association, which represents 267 of the country's target businesses. Some temporary progress at collaboration was made regarding plans for the upcoming tour guides program, but there are some fundamental differences regarding what ought to happen, particularly if the Tourism Industry Association can become an AID recipient.

Perhaps, a combination of healthy competitions and collaboration where appropriate among several organizations will be effective. USAID is a very significant player and must be sensitive to its effect on the balance of the training system.

Skills training is also part of the Belize Institute of Management's responsibilities under the USAID project, and USAID has been encouraging the Institute to become more involved in this area of clear national need. Some aspects of skills training are natural to the Institute; those that are related to good management and are referred to by the Institute as enabling skills. There is no visible competitor in the area of nonformal skills training (except in computer training), as there is in tourism and small business, but it is potentially counterproductive to push the Institute too far from its primary purpose at a time when it is so stretched and issues relating to its longer term survival are being addressed.

Hypothesis 5: In regard to the Chamber of Commerce and Industry as an umbrella organization, when the project was initiated, the Belize Institute of Management was not in a clear position to be a direct recipient of USAID funding and so it was funded through the Chamber. It was anticipated that the Chamber's membership and infrastructure would provide a strong base for the Institute's development; however, the Chamber has shrunk to a membership estimated at only 50 to 100 members.

#### H. Updating the Boyer Study

It is useful now in 1988 to revisit the basic questions posed by Boyer in his 1985 report.

- I. Does Belize need management training? The answer, it would appear, is still a clear yes, for all the reasons discussed in both reports.

2. Should the training be based primarily on activities in Belize rather than opportunities abroad? Again, the answer is a clear yes, perhaps even taken a step further, provided that training activities be given within client organizations whenever possible.
3. Should the training be provided by a Belize-based organization or one of the already existing Caribbean training institutions? There is certainly a great deal of interest in the development of a Belizean institution or perhaps a network of institutions. Now at this point USAID has three years and a good deal of resources invested in the Belize Institute of Management. It maintains a strong interest in developing the Institute as the Belize national management training organization, and this may still be a possibility. Preliminary data seems to show, however, that a division of training among a number of organizations may be more practical. The goals ought to be a training system which can be depended on over the long run to provide a range of needed training activities.
4. Ought the Belize Institute of Management to be the training institution for such a plan? Clearly the Institute ought to be the institution for traditional management training and related, or enabling, areas, as well as a national support organization for other areas of training. In certain areas, e.g. tourism, small business/micro-enterprises, the data suggests that the Institute ought to be one of several training institutions which are supported for these purposes.
5. Should the Belize Institute of Management (and perhaps other participating organizations) be free-standing or attached? Clearly, in this type of situation individual organizations need to be treated as independent entities. It would seem ideal if the organizations could function through some type of umbrella or network which could represent, plan for, and help coordinate the organization and their activities. There is no real umbrella organization in Belize, not even the government. USAID might use its influence to help create a kind of coordinating body. The new Tourism Council may be a model. Perhaps, USAID can work through the Council in collaboration with its European Economic Community Advisor to create similar councils in other sectors. The kind of strategic planning activities suggested in the recommendations might provide the framework for such a vehicle, initially on an ad hoc basis, and eventually, perhaps, as an ongoing body.

6. Should the Belize Chamber of Commerce and Industry be the umbrella organization for these activities? At this point the answer to this question would appear to be no. The Chamber's membership is down to 50 to 100 members, and it is not perceived as representing the business community as a whole, particularly the smaller businesses. USAID has granted the Belizean Chamber of Commerce and Industry BZ\$ 200,000 for institutional development. If the Chamber really wishes to serve the whole business community, the funds may make it possible for the organization to be revitalized so that the answer to this question can be yes in the future.

## I. Recommendations

### Overview:

The overall long-term goal of USAID policy in the area of management and skills training ought to be to have the widest possible and best quality training alternatives available and accessible to the Belize public and private sectors on an ongoing basis and not dependent solely on USAID support. This long-term goal goes beyond self-sufficiency for any one particular organization or program. This long range goal requires being aware of and moving in concert with other local or foreign resources and activities in the system, encouraging them where appropriate, coordinating with them consistently, but at times competing with them when that serves to increase or expand services to target groups.

USAID's activities at this point ought to serve to promote the following:

1. Institutionalize the management training function within Belize, through an appropriate combination of the Belize Institute of Management, other Belizean organizations, and possibly foreign institutions, so that the training will be available to Belize without dependence on one donor or one client.
2. Encourage the participation and institutional development of all Belizean institutions which have the potential for effectively contributing to the training function. Where appropriate to encourage the collaboration and/or healthy competition among the several institutions.

3. Bring about new and expanded training activities in public and private management.
4. Help develop a functional umbrella mechanism with which to do long-range planning for management and small business training and human resource development on a national level.

AID should through its activities encourage the widest possible collaboration among all potential institutional resources in the in-service management and related skill training areas. These would include as a core group the Belize Institute of Management, the National Development Foundation of Belize and the Belize Tourism Industry Association. The Institute's area of focus should be general management and supervision and some specialized enabling skill areas such as computers, office skills, etc.

The Institute can provide support, training expertise and linkage through its client groups and should be encouraged to do so when requested by clients or fellow training institutions. The Institute should not be pressured to take on responsibilities in skills training unrelated to these needs.

The National Development Foundation of Belize should be supported in its efforts to expand training and technical assistance to a wider range of actual and potential micro-enterprises throughout the country. Its activities should not be limited to credit recipients, but opportunities should be explored to combine training and support with financing where possible and needed for start-up or expansion activities.

The Belize Tourism Industry Association should be supported in its efforts to expand training activities for its members. The Association should be encouraged to work with the Institute where appropriate and with other training and technical assistance organizations. USAID might work with the Association to develop a pilot tourism apprenticeship training program for appropriate jobs identified by the Association. Such a program would require some kind of a credentialing mechanism, recruitment of appropriate personnel, and ongoing short-term training sessions. It should be based on, and driven by, employer needs for critical positions. Such a program might be a prototype for expansion into other vocational areas.

USAID should work with these institutions, as well as appropriate private and public sector representatives, to create a human resources development plan for Belize. This would begin by focusing on management in general and tourism in particular, and an attempt to project the needs and possibilities for meeting the needs. If the Belize

Chamber of Commerce and Industry's leadership is sincere about restructuring in a way that would make it truly the umbrella organization which AID envisioned, the Chamber could play a significant role. At present no such umbrella exists.

### Proposed Actions

USAID should do several things to take immediate pressure off the Belize Institute of Management to become self-sufficient and help focus it on the most promising strategic directions. The goal is that after USAID's investment and effort for the training services be available to the country on an ongoing basis to promote development.

While the Belize Institute of Management pursues strategies to increase revenues and lower costs, and to develop local trainers, it should also pursue securing other sources of support, including other possible revenue producers plus grant funds from local and international organizations which believe in the social value of the Institute's work.

As part of its planning, the Institute should consider its own role in the context of current developments and without the pressures of previous plans. It must focus on activities which will ensure its sustainability. In its long range plans the Institute should review its role in tourism, small business, and skills training. The Institute must take into consideration the potential roles of other organizations, local, regional, and international, in reviewing its plans. The assumption behind this recommendation is that the Institute's best chance for sustainability will be by carrying out its most appropriate role(s) in the training area in the context of the country and its needs. Some ideas for the Institute's expansion which come out of the study are:

1. The development of case studies from the Belizean context for use with Institute activities and those of other training institutions;
2. A comprehensive in-service program for the development of middle managers for the private and public sectors, something between a single workshop and a degree program;
3. Training in international management, particularly related to the promotion of exports, in conjunction with the Belize Export and Investment Program Unit.
4. A more comprehensive Training of Trainers program for clients and its own local training staff; and

5. Ongoing training in project management for USAID, and perhaps other donor agencies, project grant recipients.

The Belize Institute of Management recently had a very productive strategic planning session where some of this was discussed. These recommendations suggest that the process continue with USAID re-examining some of the assumptions of the original project design. Its focus should be a realistic look at the Institute's role after 1990, and what needs to happen between now and then. Implementing the recommendations will require some flexibility from USAID.

USAID should explore collaboration directly with the Belize Tourism Industry Association on a training program to support the expansion of tourism in Belize, as soon as the Association becomes a qualified grant recipient. The most promising possibility seems to be a kind of apprenticeship program for the tourist industry, which has been successful in the past in other occupational areas. Generally, this kind of program involves apprentices working at lower (training) wages for a specified learning period, receiving formal training on paid time, generally one day per week, and some commitment to hire the trainees after the training period. The program would require support from many quarters, including government offices which supervise minimum wage regulations.

AID should make management training and management assistance a part of all project assistance. Such support would be provided by the appropriate institution. Funds would be provided through the projects to support these activities, with decisions about the resource organization to be made by the client organization in consultation with the USAID Mission. This process should strengthen the system in the long run by encouraging constructive competition and cost-effective decision-making by grant recipients as well as by training providers.

As stressed throughout this study the important points are to develop the capacity in Belize to do management training effectively and to be sure that such training will be ongoing. In terms of the Training for Employment and Productivity (TEP) Project, now is a good time to go back and reexamine the hypotheses and assumptions and to use the experience with the project so far in order to make in-course corrections. To do this, USAID should organize a seminar, with the several institutions which provide the training as participants, to examine what has happened and what is happening in management training and to discuss the best way to institutionalize the management training function.

## ANNEX I

### Procedures and Methods for the Education Sector Assessment

The following procedures and methods were used to conduct the education assessment:

a. Literature Review- The Academy for Educational Development (AED) and USAID/Belize provided the consultants with relevant materials on the educational system and vocational-technical system of Belize. Other pertinent materials were obtained from the Ministry of Education. These included project proposals, assessments conducted by other evaluation teams, surveys and project reports.

b. Consensus Reviews- three initial meetings with the USAID/Belize Director, the General Development Officer, and the Education Officer were used to clarify the purpose of the assessment and to arrive at working consensus before the assessment was initiated. Meetings were also held with the Minister of Education, the Permanent Secretary, the Chief Education Officer, the Principal Education Officer for Secondary Education, to clarify the perspectives on the assessment. The Belize Agricultural Education Officer was a regular team member and provided valuable insights and clarifications. Periodic meetings were held with the Ministry administration and staff to maintain the proper orientation of the team members.

c. Interview Selection Process- The Ministry of Education prepared an extensive list of Ministry representatives, school level personnel, private voluntary agency representatives, and private sector representatives that could provide valuable information and data. The team members selected the institutions to be visited and the individuals to be interviewed based upon: the utility of the information that could be gathered; the individuals with different types of information that could be interviewed; and the logistics involved. This list was augmented by the team members, with assistance from the USAID/Belize staff, to include more private sector representatives and individuals involved in non-formal education and management training.

d. Assessment Team Conferences - Meetings among the assessment team members were held to discuss emerging issues, identify problems, identify missing information and data, and to cross check information.

## ANNEX II

### List of Persons Interviewed

Hon. Elodio Aragon, Minister of Education  
Mr. Patrick Bernard, Permanent Secretary Ministry of Education  
Mr. Joslyn Nembhard, Chief Education Officer  
Mr. Armando Paredes, Principal Education Officer, Secondary Education  
Mr. Harold S. Godfrey, Principal Education Officer, Primary Education  
Mr. Clement Wade, General Manager, Roman Catholic Schools  
Mrs. Maude Williams, General Manager, Anglican Church Schools  
Mrs. Radiance Tatum, General Manager, Methodist Church Schools  
Mr. Cecil Reneau, Education Officer, Vocational Education  
Mr. Owen Morrison, Principal, Belize Technical College  
Mr. Ernest Raymond, Principal, Belize Teachers College  
Mr. Moises Cal, Principal, Belize College of Agriculture  
Mr. Marion Palacio, Acting Chief Statistician, Central Statistics Office  
Mr. P.M. Price, Principal, Belmopan Comprehensive High School  
Mr. Sidley Leslie, Principal, Mopan Technical High School  
Mr. Elito Urbina, Principal, Orange Walk Technical High School  
Mr. Cecilio Pech, Principal, Belize Junior School of Agriculture  
Pastor Ellis Coh, Principal, Belize Adventist College  
Miss Carolyn Leacock, Principal, Corozal Community College  
Mr. Rosendo Urbina, Principal, Escuela Secundaria "Mexico"  
Mr. Anthony Castillo, Principal, Youth Development Centre  
Mr. Gordon, Principal, Junior Secondary School #2  
Mr. Gilberto Chulin, Education Officer, Cayo District  
Ms. Hazel Avery, Education Officer, Belize District  
Ms. Barbara Elrington, Education Officer, Belize District  
Mr. Orlando Tesecum, Principal, Esperanza Roman Catholic School  
Mr. Maximiliano Garcia, Principal, Bullet Tree Falls R.C. School  
Mr. Cresencio Pinelo, Principal, Santa Elena R.C. School  
Mr. Robert Mariano, Child Welfare Officer, Ministry of Education  
Ms. Alicia Castillo, Principal Lower Division, Lake Independence Methodist Primary School  
Mr. Glikstein Bennett, Principal/teacher, Bermudian Landing R.C. Primary School  
Mr. Donald Conners, Principal/teacher, Belize Rural High School, Doublehead Cabbage, Belize District  
Mr. Broaster, Principal/teacher, Doublehead Cabbage Anglican Primary School  
Mr. Gaba, Principal/teacher, Willows Landing Primary School, Willows Landing, Belize District (Anglican)  
Ms. Aurora McFadzen, Principal/teacher, St. Paul's. R.C. School  
Mr. Darrel Diaz, Territorial Coordinator, Caribbean Examinations Council/ACCC/CIDA Curriculum Institutional Development Program  
Mr. Francisco Tillett, Principal/teacher Chan Pine Ridge Government Primary School  
Mr. Eladio Gomez, Principal/teacher, Louisiana Government Primary School  
Mr. Henry Castillo, Principal, Middle School, La Inmaculada R.C. Primary School  
Ms. Eufemia Gutierrez, Vice Principal/teacher, La Inmaculada R.C. Infant School  
Mr. Bobadilla, Principal, Upper School La Inmaculada R.C. Primary School  
Mr. George Clark, Curriculum Consultant, British Overseas Development Division Technical Assistant, Curriculum Development Unit, MOE  
Mr. Erlindo Pech, Acting Curriculum Development Officer, MOE  
Ms. Holland, Language Arts Coordinator, Curriculum Development Unit, MOE  
Ms. Sadie Vernon, Director, Council of Churches, Belize City

Mr. Edward Musa, Vice President, Belize Chamber of Commerce and Industry, General Manager, Brodies  
Mr. Leopold Balderamos, Manager, Belize Chamber of Commerce and Industry  
Dr. Santos Mahung, Executive Director, Belize Institute of Management  
Mr. Richard Joseph, General Electric Chief of Party, Training for Employment and Productivity Project  
Mr. Don Conrad, General Electric Management Advisor, Training for Employment and Productivity Project  
Dr. Fred A. Mangum, USAID Ministry of Economic Development Advisor  
Mr. Manuel Cuellar, Managing Director, National Development Foundation of Belize  
Mr. Michael Panton, Chairman, Training Committee, Belize Tourism Industry Association and Assistant Manager, Hotel Chateau Caribbean.  
Mr. Leo Cuellar, Personnel Manager, Brodies  
Mr. Sigi Loeper, Tourism Advisor, European Economic Community, Belize Export and Investment Program Unit  
Mr. Pedro Perez, Belize Export and Investment Promotion Unit Project Manager, USAID/Belize  
Mr. Gerald Henry, Permanent Secretary, Establishment Department  
Ms. Elizabeth Chavarria, Training Officer, Establishment Department  
Father Leo Weber, President, St. Johns College Sixth Form  
Dr. George Walker, Vice President, University College of Belize  
Mr. Denton Belisle, Executive Director, Belize Export and Investment Promotion Unit (BEIPU)  
Ms. Karen Duncan, Loans Administration Office, Development Finance Corporation  
Belize Institute of Management course graduate  
Mr. Celso Poot, Senior Project Officer, Development Finance Corporation, Belize  
Institute of Management course graduate  
Mrs. Mary Ellen Duffy Tanamly General Development Officer, USAID/Belize  
Mrs. Cynthia Franklin, Education Project Manager, USAID/Belize  
Mr. Art Villanueva, Project Development Office, USAID/Belize  
Mr. Ed Hughes, Peace Corps Director, Belize  
Mr. Louis Miller, Associate Peace Corps Director, Belize  
Ms. Jean Harvey, Peace Corps Trainer, Belize  
Mr. John Wagganer, Peace Corps Trainer, Belize

### ANNEX III

#### List of Documents Consulted

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**ANNEX IV**

**Primary Education Annex**

TABLE 1  
Primary Schools -- Enrollment by District, Type and Management; 1987

District:	Government	Non-Government Management:				TOTAL
	Management	Roman Catholic	Methodist	Angli	Others	
Belize	653	4,940	2,203	2,835	1,993	12,624
Belize City	0	3,838	1,748	2,557	1,768	9,911
Belize Rural	653	1,102	455	278	225	2,713
Cayo	1,155	5,177	0	489	621	7,442
Corozal	615	3,849	506	263	521	5,754
Orange Walk	656	4,641	54	371	378	6,100
Stann Creek	0	2,930	472	554	156	4,112
Toledo	79	3,216	337	77	38	3,747
<b>TOTALS:</b>	<b>3,158</b>	<b>24,753</b>	<b>3,572</b>	<b>4,589</b>	<b>3,707</b>	<b>39,779</b>

Source: Central Statistics Office.

**TABLE 2**  
**Capital and Recurrent Expenditures on Primary Education**  
**1984/85 -- 1987/88 (\$000 Belize)**

Type of School	Capital Expenditures				Recurrent Expenditures			
	1984/85	1985/86	1986/87	1987/88	1984/85	1985/86	1986/87	1987/88
Government:	1,045	1,047	1,077	1,243	106	39	117	10
Grant Aided:	8,700	8,870	10,465	11,030				15
<b>TOTALS:</b>	<b>9,745</b>	<b>9,917</b>	<b>11,542</b>	<b>12,273</b>	<b>106</b>	<b>39</b>	<b>117</b>	<b>25</b>

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TABLE 3  
 Net Primary School Enrollment Rates  
 1980, 1987

	1980	1987
Population 5 - 14 yrs	47,021	54,339 *
Students 5 - 24 yrs enrolled in Primary Schools	34,615	39,286
Net Enrollment Ratio **	73.6%	72.0%

\* Average projection based on 2.1% inter-censal growth rate, 1970-1980.

\*\* Net enrollment ratio is the rate of the actual enrollment of pupils 5-14 years to the total number of persons 5-14 years in the population.

TABLE 4  
Primary School Enrollment by Grades  
1965 - 1987

YEAR	INFANT				JUNIOR				SENIOR			TOTAL
	I	II	Std I	Total	Std II	Std III	Std IV	Total	Std V	Std VI	Total	
1965	6,379	3,702	3,278	13,359	2,682	2,828	2,543	8,053	1,902	1,954	3,856	25,268
1970	6,045	4,144	3,897	14,086	3,721	3,414	3,222	10,357	2,631	2,986	5,617	30,060
1975	6,150	4,311	4,221	14,682	4,160	3,624	3,458	11,242	3,023	2,791	5,814	31,738
1976	6,281	4,320	4,311	14,912	4,115	3,982	3,525	11,622	2,986	3,047	6,033	32,567
1977	6,602	4,384	4,330	15,316	4,062	3,871	3,775	11,708	3,064	3,017	6,081	33,105
1978	-	-	-	-	-	-	-	-	-	-	-	33,817
1979	6,590	4,784	4,422	15,796	4,240	4,186	3,819	12,245	3,372	3,509	6,881	34,922
1980	6,609	4,655	4,537	15,801	4,410	3,942	3,779	12,131	3,297	3,386	6,683	34,615
1981	6,147	4,958	4,409	15,514	4,635	4,036	3,923	12,594	3,173	3,323	6,496	34,604
1982	6,477	4,597	4,710	15,784	4,444	4,322	3,896	12,662	3,285	3,250	6,535	34,981
1983	6,560	4,848	4,774	16,182	4,677	4,193	4,068	12,938	3,391	3,469	6,860	35,980
1984	6,991	5,125	4,875	16,991	4,832	4,599	4,230	13,661	3,628	3,473	7,101	37,753
1985	7,158	5,168	4,992	17,318	4,764	4,588	4,324	13,676	3,809	3,709	7,518	38,512
1986	7,357	5,155	5,218	17,730	4,831	4,493	4,364	13,688	3,996	3,798	7,794	39,212
1987	7,449	5,376	5,049	17,874	4,841	4,667	4,409	13,917	4,074	3,914	7,988	39,779

Source: Central Statistical Office.

TABLE 5

Transition Rate From Infant I to Infant II  
1980 - 1987

Year	Enrollment Infant I	Enrollment Infant II	Transition Rate
1980	6,609		
1981	6,147	4,958	75%
1982	6,477	4,697	76%
1983	6,560	4,848	75%
1984	6,990	5,125	78%
1985	7,158	5,168	74%
1986	7,354	5,155	72%
1987	7,449	5,376	73%

TABLE 6

Survival Rates in Primary Schools  
 Infant I - Standard VI 1980 - 1987

Year	Grade Level*							
	Inf. I	Inf. II	Std. I	Std. II	Std. III	Std. IV	Std. V	Std. VI
1980	6,609							
1981		4,958 (75%)						
1982			4,710 (71%)					
1983				4,677 (70%)				
1984					4,599 (69%)			
1985						4,324 (65%)		
1986							3,996 (60%)	
1987								3,914 (59%)

\*Source: Calculations based on Grade Level Enrollments 1980-1987,  
 Central Statistics Office

Key: Infant = Inf.  
 Standard = Std.

TABLE 7

Number of Teacher and Pupil Enrollment  
by Urban and Rural Areas - 1987

District	Pupil Enrollment	Teachers:			Pupil/Teacher ratio	Percent Rural Enrollment
		No. of Teachers	Percent Trained			
Corozal:	5,754	238				
urban	1,596	65	36.6	24.2	72%	
rural	4,158	173	49.2	24.6		
			31.8	24.0		
Orange Walk:	6,100	236				
urban	2,678	94	34.7	25.8	56%	
rural	3,422	142	43.6	28.5		
			28.9	24.1		
Belize:	12,624	525				
urban	9,911	392	62.5	24.0	21%	
rural	2,713	133	73.5	25.3		
			30.1	20.4		
Cayo:	7,442	264				
urban	2,866	137	33.7	28.2	61%	
rural	4,576	127	46.0	20.9		
			20.5	36.0		
Stann Creek:	4,112	154				
urban	1,809	68	42.2	26.7	56%	
rural	2,303	86	50.0	26.6		
			36.0	26.8		
Toledo:	3,747	161				
urban	803	28	28.0	23.3	79%	
rural	2,944	133	60.7	28.7		
			21.1	22.1		
TOTAL:	39,779	1,578				
urban	19,663	784	44.1	25.2	51%	
rural	20,116	794	60.6	25.1		
			29.8	25.3		

Source: Central Statistical Office

TABLE 8  
 Number of Schools by Enrollment Size  
 and Staffing Patterns \*

Enrollment	Staffing					
	1 or 2 teachers	3 - 4 teachers	5 - 8 teachers	9 - 11 teachers	11 - 13 teachers	14 + teachers
> 50	28					
51-100		46				
101-199			49			
200-299				37		
300-399					18	
400 +						25

\* The number of staff per school enrollment category is based on MOE Staffing Formula for Primary Education

TABLE 9  
Primary School Enrollment by District, Sex, and Grade, 1987

District:	INFANT				JUNIOR				SENIOR			TOTAL	%
	I	II	Std I	Total	Std II	Std III	Std IV	Total	Std V	Std VI	Total		
Belize	2,434	1,568	1,551	5,553	1,495	1,439	1,406	4,340	1,421	1,310	2,731	12,624	100.0%
Male	1,349	825	827	3,001	793	730	686	2,209	755	660	1,415	6,625	52.2%
Female	1,085	743	724	2,552	702	709	720	2,131	666	650	1,316	5,999	48.0%
Cayo	1,263	1,004	876	3,143	1,009	865	856	2,730	806	763	1,569	7,442	100.0%
Male	662	533	462	1,657	541	443	429	1,413	410	354	764	3,834	51.5%
Female	601	471	414	1,486	468	422	427	1,317	396	409	805	3,608	48.5%
Corozal	1,120	813	758	2,691	720	699	627	2,046	534	483	1,017	5,754	100.0%
Male	572	394	367	1,333	371	382	324	1,083	270	238	508	2,924	50.8%
Female	548	419	391	1,358	343	317	303	963	264	245	509	2,830	49.2%
Orange Walk	1,065	811	813	2,689	729	744	719	2,192	602	617	1,219	6,100	100.0%
Male	542	407	432	1,381	372	389	377	1,138	331	295	626	3,145	51.6%
Female	523	404	381	1,308	357	355	342	1,054	271	322	593	2,955	48.4%
Stann Creek	830	591	557	1,978	454	491	426	1,371	390	373	763	4,112	100.0%
Male	453	319	288	1,060	225	255	220	700	204	182	386	2,146	52.2%
Female	377	272	269	918	229	236	206	671	186	191	377	1,966	47.8%
Toledo	737	589	494	1,820	434	429	375	1,238	321	368	689	3,747	100.0%
Male	388	296	240	924	214	215	195	624	181	202	383	1,931	51.5%
Female	349	293	254	896	220	214	180	614	140	166	306	1,816	48.5%
TOTAL:	7,449	5,376	5,049	17,874	4,841	4,667	4,409	13,917	4,074	3,914	7,988	39,779	100.0%

TABLE 10

Transition Rates: Primary to Secondary Level

Year	Standard VI	Transition Rate (%)	Form I
1984	3,473	59%	
1985	3,709	56%	2,056
1986	3,798	59%	2,092
1987	3,914		2,230

Source: Central Statistics

TABLE 11  
 Belize National Selection Examination Results, 1987  
 English Usage and Comprehension

Raw Score Range	Urban Schools		Rural Schools		TOTAL	% TOTAL
	No. Students	% Students	No. Students	% Students		
0 - 9	0	0.0%	1	0.7%	1	0.7%
10 - 19	6	1.7%	8	6.1%	14	2.9%
20 - 29	45	13.0%	42	32.1%	87	18.0%
30 - 39	145	42.0%	53	40.5%	198	41.5%
40 - 49	121	35.2%	24	18.3%	145	30.4%
50 - 60	28	8.1%	3	2.3%	31	6.5%

Source: BNSE Results, 1987, Ministry of Education.

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**TABLE 12**  
**Belize National Selection Examination Results, 1987**  
**Mathematics**

Raw Score Range	Urban Schools		Rural Schools		TOTAL	% TOTAL
	No. Students	% Students	No. Students	% Students		
0 - 9	2	0.6%	1	0.7%	3	0.7%
10 - 19	40	11.6%	23	17.6%	63	13.2%
20 - 29	125	36.2%	57	43.5%	182	38.2%
30 - 39	95	27.5%	33	25.2%	128	26.9%
40 - 49	62	18.0%	15	11.5%	77	16.2%
50 - 60	21	6.1%	2	1.5%	23	4.8%

## **BELIZE: A Sketch of Three Primary Schools**

Dr. Sherry Keith

### Rural Primary School "1"

Rural Primary School "1" is located about five miles off the major northern highway in the Orange Walk district. This is the sugar cane belt and relatively close to the Guatemalan and Mexican borders. The school is a wooden structure, with an unpainted appearance, zinc roof and cement floors. Separated into three classrooms by partial wall dividers, the noise drifts easily from one section of the building to the next. The school enrolled 66 children in September 1988; all are native Spanish speakers. The teaching staff includes the principal/teacher; one fully trained teacher; another teacher completing the final internship year of teacher training; and a high school graduate with no formal preparation for teaching.

The principal is of Mayan origin and spoke Mayan at home as a child. Today he rarely uses his native tongue; instead he speaks fluent English and is conversant in Spanish as well. The other fully trained teacher is of Latin origin and comes from the Sitee community. She is Spanish/English bilingual and has taught in this school for three years. Her preference and dedication is to the youngest children, although until this year she has been assigned to teach the middle standards because of her qualifications. Her enthusiasm is reflected in the posters and pupil-made decorations which adorn the drab wooden walls. Implicitly she uses a bilingual approach with the children explaining almost everything first in Spanish and then repeating in English. However, neither teacher nor student learning materials are framed from an English for speakers of another language or bilingual base. That really matters less than one might expect because only 5 of the 12 children in the first year have their reading and workbooks; while 8 of the 13 in the second year have some or all of the required materials. The teacher has organized the children into small groups around clusters of desks placed together. The children are relatively free to move about the room, work together and consult the teacher when they need help. The teacher has also created a very modest book and materials center in the back of the classroom with a free standing shelf unit.

### Primary School "2"

Primary school "2" sits on a treeless flat amidst a rapidly growing lower income neighborhood in Belize City. Seventy-eight children are enrolled in the first year class and 88 in the second year. The Infant Section (years 1 and 2) of the school is housed in a bungalow to the side of the main school building. With small, high-placed windows the bungalow is stifling in the afternoon heat. The principal explains that the school is bursting at the seams, but in spite of overcrowding, she is loath to turn children away. "If I do, they may lose the entire school year and come here next year again looking for a place, one year older, but unschooled.

The bungalow is divided into five rooms: a single classroom approximately 15' by 15' with some 38 children 6 and 7 years old. The teacher is calling out and the children repeat in unison, "This is a handkerchief; you can use it to wipe the sweat off your neck..." while demonstrating the use of the handkerchief. Another room about 30' by 15' is divided by a standing blackboard into two classroom areas. The children on one side of the board are seated tightly in rows while the teacher talks to them. A small boy begins

to suck his thumb, and his eyes close drowsily in the intense afternoon heat. There is not a spare inch of space to organize the children into small groups or permit them to get up and move about the room. The teachers in the Infant Section report that most of the children have their books and related learning materials. Nonetheless, parents have trouble getting the books because the bookshop supply has run short.

### Primary School "3"

Primary school "3" is located on a good dirt road in rural Belize District. The school is a concrete block structure with a faded, red zinc roof and wooden shuttered windows. The inside is divided into one large classroom area about 30' by 60' and another smaller classroom area about 30' by 30'. The principal is beginning her second year at the school. The Infant Section of the school is partitioned from Standards I - III by two free standing blackboards. The teacher has a Second Class Certificate and currently is studying to pass her First Class examinations so she can go to teachers' training college.

Enrollment at the school is currently 55 students. The first two grades have 18 and 8 students respectively. The Infant I group is large this year because the entire beginning group from last year is repeating due to unacceptably low performance. The teacher works quietly with a small group of the Infant I students, while two other groups of children sit quietly at their desks. Few of the children have textbooks or workbooks -- only 2 of the 18 in the first year and 5 of the 8 second-year students.

## ANNEX V

### Vocational-Technical Education Annexes

## Vocational-Technical Education Annexes, No. 1

### Scope of Formal Belizean Vocational-Technical Education

Educational Levels	Description of Voc-Tech Program/Goals
<u>Primary Level</u>	
* Rural Primary Schools	Pre-Vocational Education goals are: Awareness; Practical or Orientation Level training
<u>Secondary Level</u>	
* Junior Secondary Schools	Vocational Occupational Preparation goals are: Practical or Orientation Level Training; Beginning Occupational Competence
* Full Secondary	Vocational Occupational Preparation goals are: Practical or Orientation Level Training; Beginning Occupational Competence
* Escuela Secundaria "Mexico"	Vocational Occupational Preparation goals are: Beginning Occupational Competence; Occupational Competence
* Belize Vocational Training Centre	Vocational Occupational Preparation goals are: Beginning Occupational Competence; Occupational Competence
* Belize Technical College	Vocational Occupational Preparation goals are: Beginning Occupational Competence; Occupational Competence
* Teachers' College	Vocational Occupational Preparation goal is: Occupational Competence
* School of Agriculture	Vocational Occupational Preparation goal is: Occupational Competence
* School of Nursing	Vocational Occupational Preparation goal is: Occupational Competence
* Sixth Form/College	Vocational Occupational Preparation goals are: Beginning Occupational Competence; Occupational Competence
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University College of Belize	Not included in vocational-technical education

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## Vocational-Technical Education Annexes, No. 2

### Interviews Conducted in the Assessment of Formal Vocational-Technical Education in Belize

Educational Level	Name/Location of Institution
Primary	<ul style="list-style-type: none"><li>San Felipe Roman Catholic School, San Felipe Village, Orange Walk District</li></ul>
Junior Secondary	<ul style="list-style-type: none"><li>Junior Secondary School #2, Belize City</li><li>Belize Junior School of Agriculture, Orange Walk District</li></ul>
Full Secondary	<ul style="list-style-type: none"><li>Mopan Technical High School, Benque Viejo del Carmen, Cayo District</li><li>Belmopan Comprehensive High School, Belmopan</li><li>Escuela Secundaria "Mexico", Corozal District</li><li>Belize Adventist Centre, Calcutta Village, Corozal District</li></ul>
Teachers' College	<ul style="list-style-type: none"><li>Belize Teachers' College, Belize City</li></ul>
Technical College/Sixth Form	<ul style="list-style-type: none"><li>Belize Technical College, Belize City</li></ul>

### Vocational-Technical Education Annexes, No.3

#### Structured, Open-Ended Response Format for Interviews of Principals of Institutions Offering Vocational-Technical Education Programs

##### General Questions:

1. Do students in vocational-technical programs learn speaking, reading, writing and numerical skills as effectively as students in academic/general curriculum programs?
2. Do students in vocational-technical programs acquire a general set of skills and work disciplines that significantly increase their chances for successful employment?
3. Do earnings of students completing vocational-technical programs compare favorably in the short and long term with those in the same occupation who are untrained?
4. Do vocational-technical programs significantly strengthen the human resource base?
5. Do vocational-technical programs have favorable community support?
6. Do vocational-technical students develop leadership skills through participation in occupationally-related associations or clubs?
7. Do vocational-technical programs increase occupational awareness?
8. Do vocational-technical programs increase occupational opportunities?
9. Do vocational-technical programs increase job access for men?  
Do they increase job access for women?
10. Do vocational-technical education programs tend to reduce occupational discrimination on the basis of race, class or sex?
11. Are vocational-technical programs established to respond to documented and current business/industry needs?

##### Curricular/Instructional Questions:

12. Are vocational-technical programs open entry/open exit or are variable time programs available?
13. Are instructional objectives based upon current business/industry occupational competencies?
14. Do the instructional materials match the instructional objectives?
15. Are tests based upon instructional objectives and match business/industry competency standards?
16. Are instructional materials useable in both individualized (self-paced) and group instruction?
17. Do classroom management techniques facilitate instruction?

##### Teacher/Administrator Training Questions:

18. Are teachers competent in subject matter compared to current business/industry standards for targeted occupations?
19. Are teachers competent in competency-based teaching/testing methods?
20. Are teachers competent in instructional management techniques?
21. Are supervisors competent in instructional management techniques?
21. Are supervisors competent in competency-based instructional management?
22. Is the overall management system geared to facilitating the instruction?
23. Is there on-going inservice training?

Questions Concerning Facilities/Equipment/Supplies:

24. Is there sufficient space available in the facility for all program functions?
25. Are tools and equipment up to current business/industry standards?
26. Are tools and equipment available for adequate individual hands-on learning?
27. Are there sufficient consumable materials available for hands-on learning?

Questions Concerning Placement and Follow-up

28. Is there an effective job placement system?
29. Is there an effective student follow-up system?

Evaluation Questions:

30. Is there an on-going formative program evaluation?

## Vocational-Technical Education Annexes, No.4

### Sample Interview

Responses to Interview Questions from Principals and Teachers at Selected Belizean Vocational-Technical Schools

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Interview with: Owen Morrison, Principal,  
Belize Technical College (BTC)  
Type of Institution: Formal School, Tertiary Level-goals:  
beginning occupational competence;  
occupational competence.  
Location: Belize City

#### General Questions:

1. Do students in vocational-technical programs learn speaking, reading, writing and numerical skills as effectively as students in academic/general curriculum programs?

**BTC Sixth form graduates on par with academic institutions, except that they don't get English Literature. (no data was available to substantiate this).**

2. Do students in vocational-technical programs acquire a general set of skills and work disciplines that significantly increase their chances for successful employment?

**Ninety percent (90%) of students find jobs within the first year after graduation. The exception are the students from the District towns, who may have to move to Belize City or leave the country. Many students leave the country. Many get jobs in the U.S. Never had any students say that they couldn't get a job. (Respondent stressed that this was an estimate, and that there is no formal follow-up of students at BTC.)**

3. Do earnings of students completing vocational-technical programs compare favorably in the short and long term with those in the same occupation who are untrained?

**Students who graduate with degrees earn 25-50 percent more than non-college graduates. Both technician and craftsmen-level graduates have much better chances for advancement.**

4. Do vocational-technical programs significantly strengthen the human resource base?

**The booming building industry in Belize is stocked with BTC graduates. The television industry is developing rapidly due to the number of BTC graduates who were trained and available. The Belize Electricity Board depends largely on the craftsmen graduated from BTC to staff their planning department (technical drawing) and other departments.**

5. Do vocational-technical programs have favorable community support?

**Community doesn't feel the need to contribute to the college since it's a government institution, so they don't get any financial help, per se. They do get scholarships, lab equipment, and occasional donations by Ministers of GOB.**

6. Do vocational-technical students develop leadership skills through participation in occupationally-related associations or clubs?

**There are no occupational clubs. Students don't like to attend meetings and don't have the time. Many students leave the country.**

7. Do vocational-technical programs increase occupational awareness?

**Career awareness is a part of each curriculum and is the responsibility of each teacher.**

8. Do vocational-technical programs increase training opportunities?

**Most of the private and government firms that hire BTC graduates send them for additional training during their careers. He felt that USAID teacher training should be offered in more areas.**

9. Do vocational-technical programs increase job access for men?  
Does it increase job access for women?  
**Access is increased for both men and women. One woman was recently hired as an engineer by the Electricity Board, even before she graduated.**
10. Do vocational-technical education programs tend to reduce occupational discrimination on the basis of race, class or sex?  
**Class discrimination is reduced by keeping low fees. That way, everyone can afford to go. Many students get part-time jobs. BTC also runs a night program of 300-400 students who are working for certificates. St. John's has an excellent outreach program for those young men who would not normally be able to afford that school.**
11. Are vocational-technical programs established to respond to documented and current business/industry needs?  
**They were not. He believes that there is no shortage of jobs. Last year they trained only 8 plumbers, and that can't meet the building industry needs, let alone meet the new demands for homes getting services they never used before. But, there really isn't any way to tell how many jobs are out there.**

Curricular/Instructional Questions:

12. Are vocational-technical programs open entry/open exit or are variable time programs available?  
**No.**
13. Are instructional objectives based upon current business/industry occupational competencies?  
**No. Curricula are based upon the CXC and City and Guilds examinations.**
14. Do the instructional materials match the instructional objectives?  
**Sometimes, but more often than not they don't match.**
15. Are tests based upon instructional objectives and match business/industry competency standards?  
**No, tests come from Great Britain and are meant for the countries in the Caribbean.**
16. Are instructional materials useable in both individualized (self-paced) and group instruction?  
**No, only group instruction.**
17. Do classroom management techniques facilitate instruction?  
**Most voc-tec instructors have little background in teaching methods. The workshops provided by TEP and the scholarships are very helpful towards solving this problem.**

Teacher/Administrator Training Questions:

18. Are teachers competent in subject matter compared to current business/industry standards for targeted occupations?  
**Some are up to date, but most are not. Some keep up by getting private jobs.**
19. Are teachers competent in competency-based teaching/testing methods?  
**No.**
20. Are teachers competent in instructional management techniques?  
**No.**
21. Are supervisors competent in competency-based instructional management?  
**Yes, some of the department heads have had training in teaching methods, some through TEP.**
22. Is the overall management system geared to facilitating the instruction?  
**No.**

23. Is there on-going inservice training?  
**Yes, inservice is being conducted by TEP. Teachers like it and many more are being trained. Voc-Tec is improving in Belize.**

Questions Concerning Facilities/Equipment/Supplies

24. Is there sufficient space available in the facility for all program functions?  
**Space is a big problem. There are many students sharing facilities, and many more are turned away.**
25. Are tools and equipment up to current business/industry standards?  
**Many tools are worn out. There are too few.**
26. Are tools and equipment available for adequate individual hands-on learning?  
**No. Everything must be shared and shared again.**
27. Are there sufficient consumable materials available for hands-on learning?  
**Funds for materials this year were cut by 25 percent. There are insufficient capital funds as well.**

Questions Concerning Placement and Follow-Up:

28. Is there an effective job placement system?  
**Students are told to come back and ask for help if they can't find a job for a year. Informal help is given.**
29. Is there an effective student follow-up system?  
**No.**

Evaluation Questions:

30. Is there an on-going formative program evaluation?  
**Student exam outcomes are used to measure program effectiveness. These are the only indicators.**

## ANNEX VI

### A Protocol of the Interviews for Management Training Organizations in Belize

An important aspect of the Sector Assessment in management training was a review of current activities and an inventory of organizations which provide some services to clients in this area. Organizations were identified which were reported to be serving this client group (business owners or business or public sector managers) in one or more related areas; and some version of the following questions were asked of a person in charge:

1. Does this organization provide any type of training in business or public sector management?
2. To whom?
  - a) How are trainees recruited/selected?
  - b) Is the training tied to credit in any way?
3. What training is provided?
4. What are the results and impact of the training?
  - a) How do you know?
  - b) Do you have any record of people's experience after the training?
5. Are there more people requesting your training services than you currently can serve? Please elaborate.
6. How are your management training services funded? What portion is paid by (a) trainee fees? (b) USAID? (c) other donors?
7. What are your greatest constraints to
  - a) offering more types of training? and/or
  - b) serving more people?
8. Do you have any connection/relationship to BIM?
9. How is the training you provide similar to/different from that provided by BIM?
10. What do you think about the training provided by BIM?

## ANNEX VII

### Peace Corps in Belize

The Peace Corps has been in Belize since 1962 and during the years a total of 1200 volunteers have served here. When the 22 individuals who are here in training become full-fledged volunteers, 123 Peace Corps Volunteers will be working in Belize. Of these some two-thirds (82) will be in education. In a very large part, development projects in education, both in the past and presently, are designed around the concept of using these Americans to help guide and implement the planned activities. In the early years the volunteers were usually young people with only limited experience, but now the Peace Corps is able to recruit more experienced, mature individuals -- some who are retired. The average age of the volunteers now in Belize is 39.

The Relevant Education for Agriculture and Production Project (REAP) was designed from its inception to have American experts from the Peace Corps who could help train the rural teachers to use a practical curriculum and innovative teaching techniques. Currently, the Peace Corps has 39 volunteers assigned to the project.

Another rural education project which was to start and maintain schools in very remote villages in the Toledo District, the Toledo Rural Education Project (TREP), also included Peace Corps Volunteers in the project design. Some of the villages where the volunteers are to help train the teachers are so remote that they can only be reached by boat and then by walking for several hours. The project has a boat for transportation purposes. At present, seven volunteers are involved with the project, four to help guide the teachers, two to help in school construction, and one to develop a learning resource center.

In addition to the activities to which Peace Corps Volunteers have been assigned, at times volunteers have recognized the need for activities or institutions to fill essential gaps in the educational system. The most successful example of an organization which grew out of a volunteer's recognition of such a need is the Belize Junior School of Agriculture. Pupils who graduate from the REAP schools and school leavers who were not able to complete their primary education needed more advanced agricultural education if they were to become better farmers. The volunteer who saw this discussed the need with the Belizeans with whom he was working, and they came up with the idea that was to become the Belize Junior School of Agriculture. They were able to find an abandoned rural primary school building which they were able to secure. They received some funds from external sources and the school has come to fill an important need and, as opposed to the regular secondary schools where the costs are two times greater per pupil than the cost for primary school pupils, the cost per pupil at the Junior School of Agriculture are only slightly higher than the cost at primary schools. The Belize Junior School of Agriculture is dealt with more extensively in the section on Agricultural Education.

Another large group (24) of the volunteers in Belize are working in secondary education since this country has an acute shortage of qualified secondary school teachers, particularly in math, science and computer science.

The remainder of the volunteers are in a wide variety of educational activities such as the Teachers College, the Technical College, library development, learning resource centers, school construction, pre-school, adult education and special education.

## ANNEX VIII

### Refugees and other Immigrants

The United Nations High Commission for Refugees (UNHCR) has an office in Belize and maintains an official register. As of July, 1988, its records showed a total of 4,182 recognized refugees. Approximately three-fourths (3,016) of them were from El Salvador and about one-fourth (1,137) from Guatemala. Twenty-seven were from Nicaragua. A U.N. official indicated that this probably represented only a small fraction of the total number of actual refugees since most come into Belize in the southern portion of the country and have not yet registered.

The definition of refugee by the U.N. is an individual (or family) who cannot return to his/her country because of danger to his/her life. In addition to refugees, an even larger number of individuals from Central America come because of war and violence which prevents them from carrying on normal lives. The U.N. considers them as displaced persons and they are not carried on their refugee register.

In addition to the refugees and displaced persons, a number of individuals from Central America come to Belize for economic reasons. It is very difficult to get an accurate count of the three different types of immigrants because they often remain in the more isolated regions of the country for at least an adjustment period and do not come in contact with government authorities. The figures that are available indicate that the Spanish and Indian speaking individuals now make up a sizeable proportion of the population. This number is growing at what appears to be a rapid rate. With the sparse population here and available opportunities in agriculture, especially when compared to such opportunities in other Central American countries, predictions are that in not many years the population whose first language is Spanish will outnumber that whose first language is Creole or English. This appears to be a safe prediction because the emigration from this country is largely from the English speaking group.

RECOGNIZED REFUGEES AS AT 31ST JULY 88

NATIONALITY	NO. OF CASES	FAMILY MEMBERS	INDIVIDUALS	TOTAL
Salvadorean	2,183	2,360	656	3,016
Guatemalan	382	1,011	126	1,137
Nicaraguan	12	21	6	27
Ghanaian	1	-	1	1
Chilean	1	-	1	1
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TOTAL	2,579	3,392	790	4,182

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## ANNEX IX

### Belize Enterprise for Sustained Technology

The Belize Enterprise for Sustained Technology (BEST) was helped to get started in late 1985 by a United States private voluntary agency, the Katalysis Foundation which had been founded the previous year. Its founder, Robert E. Graham, a successful agro-industry executive from Stockton, California, hoped to develop an organization which would provide lasting assistance to poor farmers in Belize.

During the past three years, BEST has served 20 client groups, primarily small farmer co-ops. The concept is to make the client groups equal partners in the design and execution of their programs so that the people involved will become more self-confident and more in charge of their future. Illustrative of the BEST success stories is its work with the Belize Banana Growers Cooperative, the Big Falls Farmers Cooperative and the Southern Beekeepers' Cooperative. Before BEST began to help, the Banana Growers Cooperative was on the verge of disintegrating. After some help in planning and some training in management and accounting, the cooperative is thriving and even expanding its acreage. For the Big Falls group, BEST helped to organize its supply shop so that instead of losing, it began to be profitable. BEST also helped the group to diversify its production by finding crops which would be suitable and profitable. BEST helped train the beekeepers in business practices and in finding ways to cope with Africanized bees.

The operation of BEST in Belize has been supported by an operational program grant from USAID/Belize. The grant was \$385,000 for three years to complete the project. Because of a delay in getting the project started, the completion date has been extended to September 30, 1989. The funds are used to provide staff for BEST and operate its training and advisory programs for poor farmer groups and for technical assistance to BEST to help it improve its services. The technical assistance is provided by Technoserve, Inc., a private, non-profit development organization which has been assisting community-based enterprises and local institutions in developing countries since 1968.

In addition to the AID grant, in September 1987, BEST received a small grant (\$32,000) from the Inter-American Foundation to be used to set up a revolving credit fund to provide small loans up to \$5,000, for client groups of BEST.

A participatory evaluation of the project in January, 1988, found BEST's operations to be well-managed and to be having positive results but suggested that the organization should prioritize the problems of the client groups on the basis of which are the greatest constraints to profitability. It was also recommended that BEST should assist more in the credit activities, and particularly the suggestion was to make it possible for more women to have access to credit facilities. The revolving fund is currently administered by the National Development Foundation of Belize (NDF/B).

Presently BEST charges a service fee, and the recommendation was that this be dropped for some clients who were not able to pay. Another major recommendation was that BEST needed to expand its number of clients, thereby reducing its unit cost.

BEST has submitted a proposal for an additional OPG to USAID/Belize. This proposes to extend the external assistance for three more years with the concept that the organization by that time will be self-sustaining.

After the try-out of Katalysis' method of working with indigenous private voluntary agencies in Belize, Katalysis now hopes to expand its activities to other developing countries and has made a proposal to AID for a one-million dollar operating program grant for this purpose.

## ANNEX X

### The Christian Reformed World Relief Committee

The aim of the Christian Reformed World Relief Committee, which has been operating in developing countries since 1977, is to develop effective and independent organizations by which the poor can be empowered to solve their problems.

The organization receives a matching grant from the Canadian International Development Agency (CIDA) fund of about one million dollars per year. It is now proposing to expand its operations to more countries, including Belize, and has submitted a proposal to AID for a matching grant (operational program grant) for \$734,800. Of this the first year AID funding for Belize would be \$87,710. The activities funded would include working with six village communities in northern Belize, and organizing a cooperative in the Valley of Peace, in conjunction with the start-up or strengthening of at least two development organizations. The objective would be to help poor farmers to increase production so as to reduce the number of malnourished children. It hopes to accomplish this through institution building, helping community groups to develop skills in technical areas, finance management and creating and encouraging local (democratic) "ownership."

Actually, the organization has been working in Belize since 1985. The current program is with poorer farm families in seven rural villages, sugar cane areas in northern Belize and with the Valley of Peace refugee center. In 1988 it began an intensive effort to integrate health and nutrition with agricultural efforts.

The priorities of the organization now are to seek out and strengthen Belizean development agencies, employing and training Belizean staff, increasing the emphasis on leadership training, both in management and technical skills, and expansion of efforts into the area of health.

To date USAID/Belize has had limited contacts with the organization, but the knowledge obtained about the organization's operations indicate that it is providing a needed service with a group of very poor farmers not being reached by any other group.