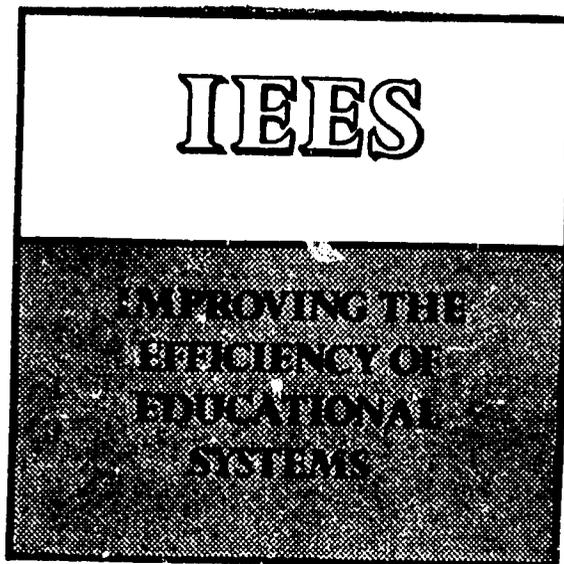


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BOTSWANA

Botswana IEES Country Plan

June 1985



Florida State University
Howard University
Institute for International Research
State University of New York at Albany

Agency for International Development
Contract No. DPE-5823-C-00-4013-00

Improving the Efficiency of Educational Systems (IEES) is an initiative funded in 1984 by the Agency for International Development (AID). The principal goals of the IEES project are to help developing countries improve the performance of their educational systems and strengthen their capabilities for educational planning, management, and research. To achieve these goals, a consortium of U.S. institutions has been formed to work collaboratively with selected host governments and USAID Missions over the next ten years. The consortium consists of Florida State University (prime contractor), Howard University, the Institute for International Research, and the State University of New York at Albany.

There are currently nine countries participating in the IEES initiative. Five are in Africa: Botswana, Liberia, Niger, Somalia, and Zimbabwe. Other countries involved with the project are Haiti, Indonesia, Nepal, and North Yemen.

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1. INTRODUCTION

This document presents the background, rationale, and proposed activities for the Improving the Efficiency of Educational Systems (IEES) Project in Botswana over the five-year period from 1985 to 1990. The proposed activities are the result of collaborative discussions and joint decisions made in Gaborone by representatives of the Government of Botswana, the USAID Mission to Botswana, and IEES Project representatives during April and May of 1985. This Country Plan also reflects suggestions from major donors currently active in Botswana's education and human resources sector.

Section 1 states the purpose of the Country Plan and presents an overview of the IEES Project. Section 2 describes the context for the project in Botswana and identifies priority needs in the education and human resources sector. Section 3 summarizes current and planned activities of Government and major donors in the sector. Section 4 gives the rationale for IEES Project activities in Botswana. Section 5 describes specific proposed Country Plan activities with a focus on these six major objectives:

- Computer systems design and applications.
- Evaluation training and applications.
- School management training.
- Country Plan revisions.
- Sector assessment updates.
- Knowledge building and networking.

1.1 PURPOSE OF THE COUNTRY PLAN

The central objective of the Country Plan is to identify priority activities for the IEES Project assistance that will do two things: (1) improve the efficiency of resources allocation in the education and human resources sector, and (2) strengthen the institutional and individual capacity of the sector to support a fully integrated approach to educational planning and management. Aspects of the plan related to this central objective are presented below.

The plan will help Government achieve its priority targets in the sector, and will clarify the interrelationships among all proposed IEES Project activities in Botswana with respect to these targets. The plan includes proposed activities related to collaborative research, training for capacity building, networking for improved communications, and knowledge building. These proposed activities all focus on the major goals of Government and the IEES Project within an overall and integrated strategy that jointly addresses them.

The plan supports the development of institutional and individual capacities to make more efficient use of educational resources, based on the assumption that the real value of these resources will not significantly increase in the long term. Most improvements in the education sector, therefore, will largely have to be the result of improved efficiencies in use and allocation rather than the result of substantially increased resources.

The plan describes activities that jointly address Government targets in the sector and priority IEES Project objectives, within the overall rationale that relates these activities to the objectives. Thus, specific activities do not represent individual or institutional specialties of staff or Government researchers, nor do they represent any donor-specific interests. Rather, they flow from an integrated approach to the overall project goals of increasing efficiency and building capacity.

The acceptance, effectiveness, and efficiency of the long-term and short-term IEES Project activities are enhanced by having them closely coordinated with Government plans and priorities, as well as those of major donors, based on information in the Sector Assessment and the Sector Assessment Update and on interviews with approximately 40 individuals in Botswana.

Six basic strategies are used to derive the activities described in Section 5. These are: the sector assessment approach, long-term planning, a collaborative process to identify priority activities, flexible use of resources, a collaborative approach to research and development, an institutional focus for capacity building, and knowledge building and networking.

The Country Plan covers a five-year period, from July of 1985 through September of 1990. It represents a long-term commitment on the part of USAID, through the IEES Project, to support educational efficiency and capacity building in Botswana. An average of approximately P330,000 (\$200,000) will be available for selected activities in each of the next five years.

The plan contains significant detail on most proposed first-year activities and less detail on activities for subsequent years. The plan is both flexible and "rolling". It is flexible because total funds can be distributed over the activities within the plan period in a way that makes maximum use of these resources. Moreover, an annual revision of the plan permits adaptation or alteration of activities to accommodate progress and changes in the sector, Government priorities and programs, or donor activities. It is a rolling plan in the sense that each year another year of activities will be added during the annual review. This process will continue through the 10-year proposed duration of the project, with new activities being added through September of 1995.

1.2 DEVELOPMENT OF THE BOTSWANA COUNTRY PLAN

This plan represents a consensus of views among all participants in the IEES Project. In addition to representatives of Government, participants also include representatives of USAID (both in Washington, D.C. and Gaborone), major active donors in the sector, and IEES Project staff.

The *Botswana Education and Human Resources Sector Assessment* was conducted during October and November of 1983 and was published in June of 1984. With the information from the June 1985 *Botswana Education and Human Resources Sector Assessment Update*, it has served as the foundation document for the Country Plan.

Prior to visiting Botswana, the two members of the Country Plan team identified a provisional group of plan activities based on priority needs cited in the assessment and the update. These activities were discussed with representatives of the Washington, D.C. staff of AID (Bureau for Science and Technology, Education Office) to establish agreement on the general focus of assistance and on the level of resources available to support the proposed plan activities.

The work of the planning team in Gaborone was under the direction of an inter-ministerial Reference Group chaired by the Principal Planning Officer of the Ministry of Education. Members of this Reference Group, who represented four ministries and the Office of the President, guided the team during its work, reviewed a draft version of the Country Plan prepared while the team was in Gaborone, and made suggestions and recommendations which are incorporated into this final version. The names and organizational affiliations of the Reference Group are given in Annex A.

The identification of priority needs to be considered for inclusion in the plan was a collaborative process. Thirty-nine individuals were interviewed, several of them more than once. These individuals are listed in Annex B. In these interviews they indicated priority needs and suggested relevant activities to address them. These needs were then compared with those identified in the 1983 sector assessment, and the *Botswana Education and Human Resources Sector Assessment Update* conducted simultaneously with the preparation of this plan (May 1985), and considered with respect to the objectives of the IEES Project. Potential activities were then grouped into areas relevant to the IEES Project and selection of activities for inclusion in the plan made within each group.

1.3 OVERVIEW OF THE IEES PROJECT

The IEES Project is a 10-year, multi-country project to improve the efficiency of education and to strengthen the institutional and individual capacity of the education and human resources sector for improved educational planning and management. Nine countries are participating in the project, five of which are in Africa. In addition to Botswana, participating countries include Haiti, Indonesia, Liberia, Nepal, Niger, North Yemen, Somalia, and Zimbabwe. As well as activities within each country, there are a number of international activities included in the project. These facilitate information sharing and learning among all participating countries.

Several activities related to the IEES Project were conducted in Botswana before this plan was prepared. Before the contract for the IEES Project was awarded, a team of seven specialists worked closely with representatives of the Government of Botswana and prepared the 1983 sector assessment under the joint sponsorship of

AID/Washington and the USAID Mission to Botswana. After the contract was awarded in June of 1985, representatives of the implementing consortium (Florida State University [prime contractor], Howard University, the State University of New York at Albany, and the Institute for International Research) sent teams to Gaborone to assist with the preparation of planning documents for the Junior Secondary Education Improvement Project (JSEIP) which is jointly sponsored by Government and USAID/Gaborone. In April of 1985 a project agreement was signed between Government and USAID/Gaborone and JSEIP will be implemented by the IEES Project consortium in the Fall of 1985.

The IEES Project activities in Botswana are funded by USAID/Botswana, the Education Office of the Bureau for Science and Technology of AID/Washington, and the Bureau for Africa of AID/Washington. All funding for the Country Plan activities is from AID offices in Washington. The project is coordinated through the Ministry of Education and the Ministry of Finance and Development Planning.

2. CONTEXT

This part of the Country Plan describes the context for IEES Project activities in Botswana. This context provides an understanding of the conditions and factors that influence the operations of the education and human resources sector and gives a general overview of the current status and goals of the system. The major sources of information for this section are: *Botswana Education and Human Resources Sector Assessment* (June 1984); draft *Botswana Education and Human Resources Sector Assessment Update* (June 1985); draft Education Chapter of *National Development Plan VI* (February 1985); and interviews conducted in Botswana during April and May of 1985 as part of the preparation of this Country Plan.

2.1 OVERVIEW

The overview addresses three areas as a basis for the rest of this section. The three areas are: the historical and social setting, the general status of education, and a summary of achievements in the *National Development Plan V* (NDP 5) period.

- Historical and Social Setting. From 1885 to 1966 Botswana was a British Protectorate. Since independence it has maintained its democratic parliamentary government. There is universal suffrage and candidates are elected to a National Assembly. The House of Chiefs, representing the principal tribes, is an advisory body to Government.

Most Batswana belong to Setswana-speaking tribes or clans. Both Setswana and English are official languages with English being the major language of Government. Other languages are spoken by minority groups such as the Bakalanga, Basarwa, and the Baherero.

The population of Botswana was 941,000 in 1981, with an additional 42,000 of its people living in other countries. The country is one of the most sparsely settled in Africa, but its population growth rate is one of the highest in the world. There is overcrowding in some areas, because over two-thirds of the country is covered by the Kalahari Desert. There is no arable land on the Kalahari, and the rain so necessary for agriculture and livestock is very scarce throughout the country. These conditions are especially harsh, since approximately 75 percent of the population depends for its livelihood on the traditional sector of agriculture and livestock production.

Almost 50 percent of the population is under 15 years of age. Life expectancy is about 55 years and the literacy rate is approximately 35 percent. Only about one-half of the population has access to potable water. Provision of education and other Government services to rural people is made difficult by the three-site farming system. Families living under this system are together in villages between June and November. The rest of the year the women and girls live on their small farms and the men and boys reside at cattle posts.

- General Status of Education. The first schools in the land that is now Botswana were introduced in the early 19th century by the London Missionary Society, and were only primary schools. Further development of the formal system was slow and access was made difficult by the three-site farming system. At independence in 1966 there were only 251 primary schools and nine secondary schools.

By 1983 there were 502 primary schools, 22 Government and Government-aided secondary schools, and 20 private secondary schools. Also in 1983, there were 6,360 teachers and 198,328 pupils in primary schools. At the secondary level there were 1,084 teachers and 22,252 students. In the same year, 1,463 students were enrolled in vocational schools, 948 in teacher training colleges, and 1,195 at the University of Botswana.

Given the slow development of formal education in Botswana, the progress made in providing primary education to Botswana children is noteworthy -- 83 percent of children of primary school age are now enrolled. Government's commitment to education is further demonstrated by its policy to further extend universal access from seven to nine years of basic education. Implementation of this policy will require rapid expansion of the two-year Junior Secondary cycle. This expansion will begin in January 1986. Concurrent with increasing access to Junior Secondary school, Government is placing high priority on improving the quality of primary education and further developing vocational and technical education.

- Summary of Achievements During NDP 5. During the NDP 5 period (1979-85) highest priority was given to primary education. The removal of school fees in 1980 increased access to primary education significantly. The annual growth rate for primary enrollments during the period was 6.3 percent. Provision of facilities was significantly below goals set for the period but several qualitative improvements are set forth in the draft *National Development Plan VI* (NDP 6) document. These are in the

areas of curriculum, inservice training of teachers and education officers, textbooks and teachers' guides, schools broadcasting, and Government subsidies.

At the secondary level, there were increases in the number of schools during NDP 5. Four new Community Junior Secondary Schools (CJSSs) were opened, three were built to replace existing ones, and 15 were opened in converted primary school facilities. Government constructed two Junior Secondary schools and one Senior Secondary school, and a technical wing was added to the Lobatse Secondary School. This allowed an increase in enrollments throughout the secondary system. Consistent with its commitment to improve secondary education quality and access, Government increased its support to the CJSSs during NDP 5, both in terms of student subsidies and the supply of trained teachers.

A program of expansion was begun in the Primary Teacher Training Colleges (PTTCs) during NDP 5. This provided an increase in trained primary school teachers and a subsequent decrease in the proportion of untrained teachers. Secondary school teachers were trained at the University of Botswana because the opening of the College of Education at Molepolole, where Junior Secondary teachers are to be trained, was delayed until March of 1985.

Significant changes occurred at the university level during the NDP 5 period. In 1982 the University of Botswana came into being after the University of Botswana and Swaziland divided into two separate institutions. Particular emphasis was on quality improvement and the University has initiated closer relationships with Government. Specific achievements include: new departments of Geology and Pre-Entry Science; new degree programs in Business Administration and Commerce, in Demography, and in Environmental Science; diploma and certificate programs in Librarianship and Adult Education; diploma and degree programs in primary education; a postgraduate diploma in education for secondary teachers; and a certificate in Mathematics/Science Education for teachers trained in non-science subjects.

Technical and vocational education was one of the fastest growing areas in the sector during the NDP 5 period. Enrollments increased 360 percent during this period, with a shortage of instructors making further growth impossible. Important activities included the establishment of the Automotive Trades Training School and the Botswana Polytechnic. During NDP 5 the Brigades experienced great difficulties related to financing, management, and availability of trained instructors. A new policy was developed regarding the Brigades and Government's annual subsidy was increased from P400 to P1,000 per student.

The Department of Non-Formal Education has focused its activities on the National Literacy Programme and on its Correspondence Programme (which offers courses at the secondary school level). It has developed a fairly decentralized management structure with Non-Formal Education Offices in all Districts and 15 study centers for correspondence students. The Correspondence Programme has grown at a much faster rate than was anticipated at the beginning of NDP 5.

2.2 FISCAL AND MANAGEMENT CAPACITY

As noted in the *Botswana Education and Human Resources Sector Assessment*, the following six major factors characterize Botswana's economy:

- Dual economic bases of mining and agriculture.
- Interdependence of the traditional and modern sectors.
- Political stability and conservative fiscal management.
- Environmental fragility.
- External dependence.
- Manpower imbalances.

According to the 1985 *Botswana Education and Human Resources Sector Assessment Update*, the dominating factors have been environmental fragility and external dependence since the 1983 sector assessment. Environmental fragility is reflected in three years of drought, and virtually no improvement in terms of decreasing the amount of imported food. The factor of external dependence, however, has had positive effects. As a result of world markets, inflation in the Republic of South Africa, and Government's reaction to the changing financial situation, Botswana's macroeconomic performance improved in 1984. Continued conservative fiscal policies and plans for NDP 6 will allow Government to use the current situation to build reserves which can be drawn upon later in the plan period when significant deficits are expected.

Despite projected financial constraints by the end of NDP 6, the Ministry of Education will be allocated more funds during the period. Although plans for NDP 6 have not yet been approved, the Ministry of Education anticipates that the recurrent expenditures for education will be allocated at an annual growth rate of 11 percent. This represents an increase in recurrent expenditures for education from 22 percent to 27 percent of the total recurrent budget. (It should be noted that the Ministry of

Finance and Development Planning estimates a slightly lower annual growth rate -- 10.4 percent). The Ministry of Education also plans that the average annual development expenditures should be P33 million. Much of the development budget is expected to be received from donors. Selected donor activities and plans are described in Section 3.2 of this document.

Three items in the Ministry of Education budget are expected to have particularly high growth rates: *technical education*, *ministerial administration at headquarters*, and *secondary education*. The growth in *technical education* is due to several factors. Rapid enrollment growth is expected and training for particular trades is likely to be encouraged in response to manpower needs. This expansion and the high unit costs for technical education contribute to Government's proposed 26.5 percent annual budget increase for vocational and technical education. An increase in expenditures for *ministerial administration at headquarters* should improve administration, planning, and evaluation. A 14.5 percent increase is expected. The *secondary education* budget is expected to have a 14.3 percent annual increase. This is needed for the planned expansion and quality improvement programs. Current expansion plans call for larger investments than were originally forecast in the 1983 Sector Assessment. Thus, donor assistance for this subsector is a high priority.

Two factors require that the Ministry of Education stress internal and external efficiency in its programs. First, with such large investments in technical and secondary education and in supporting functions during the NDP 6 period, those funds that are available for other subsectors will have to be used very carefully. Second, economic forecasts suggest there will be less funds available to education for expansion during *National Development Plan VII* (NDP 7), even though demands for education to support employment are likely to continue at a high level.

The relationships between education and training on the one hand, and employment on the other hand, will remain complex. The 1983 sector assessment noted a surplus of labor relative to the formal sector but extreme shortages of manpower to fill skilled labor and management positions.⁷ Recent data from the Ministry of Finance and Development Planning indicate that between 1981 (the data on which the sector assessment was based) and 1983 the shortage of secondary graduates was decreased significantly. There remains a surplus of workers with a primary education or less.

The 1985 *Botswana Education and Human Resources Sector Assessment Update* concludes that aggregate projections of manpower balances are encouraging for the next few years. However, individuals with primary school or less are likely to have difficulty finding employment in the formal sector. It is important to note that future employability will depend increasingly on particular areas of specialization and on post-school (such as vocational) or university training. And, in the short term there will be a continued dependence on expatriates to fill high level supervisory and managerial positions through the country.

2.3 EDUCATION AND HUMAN RESOURCES GOALS AND PRIORITIES

The draft Education Chapter of NDP 6 gives the following four education sector objectives for the 1985-90 period:

"To prepare Botswana for useful and productive lives, with emphasis on training to meet manpower needs of the economy. Rural development and employment generation will be given special attention.

To increase educational opportunities for all age groups and reduce inequalities of educational opportunity within the limits of available resources.

To promote coordination between various subsectors of the education sector with the ultimate aim of providing continuous access from primary to post primary education and training by using both the formal and the non-formal systems.

To strengthen the cooperation between school and the community by encouraging increased participation of the community in the management of the schools." (draft NDP 6, p.1)

The draft plan also lists specific priorities for each subsector. These are summarized immediately below. Activities to address these priorities are described in Section 3.1 of this document.

- Primary Education. Two major objectives have been identified for primary education during NDP 6. These are to increase access to primary education and to intensify current efforts to improve its quality.

- Secondary Education: Government has two long-term objectives for secondary education. These are based on the *Report of the National Commission on Education* and the 1977 Government Paper on *National Policy for Education*. These objectives are to meet Botswana's manpower requirements, particularly for Form 5 school leavers with

good qualifications in mathematics and science, and to provide universal access to Junior Secondary education.

● Teacher Training. There are four interrelated objectives for teacher training during NDP 6. These are the following:

Increase the number of primary and secondary teachers because of the increased demand that the expansion is placing on the system.

Train those teachers in the system who are currently untrained.

Replace expatriate teachers with Bats'wana to support Botswana's localization policy.

Train all current teachers in the new curriculum and methods of the nine years of basic education.

● Curriculum Development. The major priority in this area is support to the Ministry of Education's emphasis on quality improvement. To do this it will be necessary to focus on guidance and counseling linked to employment, develop tests related to the nine years of basic education, and conduct research regarding competency levels related to various levels of schooling.

● University Level Education. The draft of NDP 6 lists six objectives for university level education. These are:

"To assist in meeting manpower needs by a planned expansion in student numbers, especially in education and in the sciences, and by expanding the range of courses available.

To contribute to the unified development of post-school education by improving relationships with other post-secondary institutions, and to assist with the initial and inservice education of the professions, in cooperation with Government and with the private sector.

To increase the service of the University to the community by increasing the provision of short non-award-bearing courses and of award-bearing courses by private study and distance education methods. The Institute of Adult Education will play a major role in this work.

To develop a base of skilled researchers and to give increased research services to the community through the National Institute for Development Research and Documentation.

Together with Government to explore ways and means of avoiding sending students abroad for courses which it is viable and cost-effective to offer at Botswana institutions.

To review bursaries policy with the aim of gearing sponsorship offers to manpower priorities. To review the bonding system and to investigate the possibility of selective sponsorship as well as a combination of study grants and loans." (draft NDP 6, p. 46-47)

- Technical and Vocational Education. The priority for this subsector is to secure adequate numbers of suitable qualified Batswana to achieve rapid social and economic development. Government places a special emphasis on rural development and employment creation. This priority requires attention to skills needed by the informal and rural labor force as well as the formal and more urbanized one.

- Non-Formal Education. The draft Education Chapter lists five objectives for this subsector. These are:

"The Department will continue to attempt to meet the learning needs of communities in rural and remote areas. In doing this, the department will be guided by the National Literacy Committee and the Rural Extension Coordinating Committee, and will continue to cooperate with the Department of Tirelo Setshaba as well as other agencies at national, district and village levels. Local authorities will have increased influence in planning and implementation of non-formal education programmes.

The Department will expand its non-formal activities beyond reading, writing and numeracy. The needs of rural communities, in terms of skills required for income generating activities, will form the basis for this expansion.

The Department will strive to make correspondence education a viable alternative to secondary education by, for example, providing a wide choice of, especially practical, subjects.

The Department will continue to train staff at all levels in developing skills relevant and appropriate to specific job needs.

The Department will continue to use radio broadcasts to support the activities of its various units." (draft NDP 6, p. 58-59)

- Bursaries. The highest priority in this area is to make the most efficient use of limited funds that are available for student bursaries. It will be essential to develop a bursaries policy and to maintain better records on bursary applications and awards.

2.4 ISSUES AND CONSTRAINTS

● Issues. Several issues need to be taken into consideration as Government implements activities to support its goals. The relationships between manpower supply and demand require special attention as noted earlier in this document. In providing educational opportunities, Government must recognize that there will continue to be a shortage of skilled labor and management manpower in the next decade and, simultaneously, there will continue to be an oversupply of primary school leavers. The problems posed by this large group of unemployed Batswana will be further exacerbated by the increasing numbers of Junior Secondary graduates who will not have received additional training and will not, therefore, be likely to find jobs. Unfortunately, these unemployed individuals probably will not be able to work in the informal or agricultural sectors as their schooling will not have prepared them for such careers. It is essential, then, that more attention be given to the very difficult problem of employment generation.

Improvement in educational quality is essential if education and training are to meet manpower needs. Instructional improvement requires resources for better qualified teachers, learning materials, and facilities. Yet, this is needed at the same time as Botswana is investing heavily in expansion of technical education, Junior Secondary education, and management improvements at headquarters.

Botswana has achieved high enrollment rates at the primary level and is increasing access to the Junior Secondary cycle. Access is still limited, however, for those pupils living in remote areas. This poses a serious problem for Government because providing education to these students will have higher unit costs than the education of those located in towns and villages. Equally as challenging is ensuring an equal opportunity for all Batswana to acquire functional numeracy, literacy, and other skills to support an improved livelihood.

Botswana's education and human resources sector is characterized by a high level of efficiency. Its planning, management, and administrative structures, however, will be under extreme pressure over the next decade. Successful implementation of the Junior Secondary and technical education expansions will require effective coordination of a wide range of activities. This coordination will be partially dependent on decentralization of day-to-day management decisions and on skills and accurate information to support short-term and long-term planning.

The goals of increased access and quality of basic education demand higher staffing levels at both the instructional and management levels. Shortages of manpower in these areas, combined with Botswana's localization policy, present an interesting dilemma. It is highly unlikely that the access and quality goals will be met without substantial dependence on expatriate staff.

- Constraints. In many ways, the above issues are a result of constraints to the system. There are four major constraints which could be obstacles to Government in its attempts to attain its goals in this sector. First, there is a shortage of Botswana with planning, management, decisionmaking, administrative, and technical skills. The lack of effective staff development programs in both the private and the public sectors is a second constraint. The difficulties caused by these manpower shortages should not be underestimated. A third constraint is the lack of reliable information for informed decisionmaking and planning. A final constraint will be the need to use available funds both conservatively and efficiently. Improving efficiency will be essential in light of the economic situation facing this sector, as described earlier.

2.5 OVERVIEW OF SUBSECTORS

Information for this overview is abstracted from the draft *Botswana Education and Human Resources Sector Assessment Update* (June 1985) which was developed by a team of three consultants in April and May of 1985, at the same time the *Botswana IEES Country Plan* was prepared. Further details and explanations are in the 1983 sector assessment and its recent update.

- Primary Education. Significant improvements continue to be made in primary education. Government is committed to improving quality and has stayed on its course. Preparation for Phase II of the Primary Education Improvement Project (PEIP II) is well underway, the curriculum is being revised (this is covered below) and important improvements have been made in materials distribution. Substantial achievements also have been made in the area of teacher quality. The proportion of trained teachers continues to increase and their distribution by districts has been improved.

Equity concerns have been addressed in two ways. Some remote, rural, primary schools have been provided with hostels to encourage attendance and retention, and a

special unit has been established in the Ministry of Education to provide support to disabled students.

Major problems are teacher quality, variability in class size, and provision of new primary school facilities. Primary education will remain the joint responsibility of the Ministry of Education and the Ministry of Local Government and Lands, with activities coordinated by the Interministerial Committee on Primary Education.

- Secondary Education. A restructuring of Junior Secondary education is a new and major emphasis. Changes will be qualitative, quantitative, and structural as the country moves toward nine years of universal Junior Secondary education. As part of this emphasis, Government has prepared the Junior Secondary Education Improvement Project (JSEIP) which will support management of education, teacher training, curriculum revision, and instructional materials development. Curriculum revision presents a serious challenge as the curriculum has to be coordinated with the new structure of secondary education, which will change from a 3-2 to a 2-3 division between the junior and senior levels during the next plan period.

To accommodate increased enrollments the CJSS model will be used for all Junior Secondary schools. This decision poses some short-term problems because the CJSSs have a lower proportion of trained teachers than Government and Government-aided schools and are in greater need of improved school facilities. It is clear that the most critical area in Junior Secondary education will be teacher supply and that there will not be enough Batswana to fill all the places.

- Primary, Junior Secondary, and Senior Secondary Curriculum. Since completion of the sector assessment, the Ministry of Education has devoted considerable effort to curriculum development and revision. The proposed new nine-year cycle of basic education will make education more practical, and will strengthen those content and skill areas which will help young Batswana become more self-reliant, employable, appreciative of Tswana culture and Botswana's place in Africa, socially adaptive, and aware of their need to be responsible for their personal health. Significant progress has already been made toward this goal.

There are several curricular areas that could benefit from additional attention and improvement. The curriculum would benefit, for example, from having its objectives stated in terms of changed student behaviors. There is a need for better integration

within and between subjects across all grades. The new curriculum's subject matter and objectives require a different teaching methodology, and this has broad implications for inservice and preservice teacher training. Finally, a practical continuous curriculum assessment program is needed.

- Teacher Training. The many changes in primary and Junior Secondary education are placing high demands on the teaching force. As the educational system expands and improves it is this part of the sector which will be placed under a great deal of stress. As Botswana continues to move toward an integrated curriculum, there is a need to better coordinate overall policy and management control of all teacher education activities. There is a serious shortage of teachers, and especially teachers trained in the new curriculum. Major advances have been made to improve the situation. These include the opening of the College of Education at Molepolole in 1985, revision of teacher training programs at the University of Botswana, and evaluation and improvement of inservice programs as part of the PEIP and JSEIP projects. These improvements will require better integration among the various components of teacher training and utilization -- preservice, inservice, assignment, program evaluation, and induction, for example. Moreover, it will be important to monitor the outcomes of all these activities to ensure that they support Botswana's goals. In particular, the various inservice training programs need evaluation.

- Higher Education. Over the last 18 months, the University of Botswana has continued its development in the areas of aggregate growth, increased range of programs, and improved quality. Special efforts are being directed toward promoting localization and improved staff quality. One-half of the instructional staff are Botswana. At the end of 1984, there were 23 Botswana studying abroad in doctoral programs and 20 in master's programs.

- Technical and Vocational Education. Because of the shortage of skilled and semi-skilled labor, this subsector is expected to be the fastest growing area within the Ministry of Education during the next five-year plan. To increase enrollments, major investments will be made in the Botswana Polytechnic, the Automotive Trades Training School, the Brigades, and the Vocational Training Centers. The new Apprenticeship Bill and increased donor support will significantly reduce the problems of in-

adequate supplies and equipment identified in the sector assessment. Staffing problems, however, remain serious. Recent efforts to obtain more current and relevant labor market information indicate a much improved planning process in this subsector.

- Management Capacity. Two important developments have contributed toward improvement of administrative and management capacity since the 1983 sector assessment. First, a memorandum of understanding has been developed which clearly delineates the relative management education and training responsibilities of the Institute for Development Management, the Botswana Polytechnic, the Botswana Institute of Administration and Commerce, and the University of Botswana. The second major component of Botswana's development of greater management capacity was implemented as a result of the President's program for improvement in the overall performance and productivity within the public service. The goal of this program is to make the most efficient use of public sector resources.

- Non-Formal Education. This portion of the sector has not received major attention since the sector assessment, in contrast with most other subsectors. The wide range of activities and diverse objectives of this subsector, compared with very limited financial and personnel resources, remains a serious problem. In particular, the rapid growth of the secondary level correspondence program is placing enormous demands on the Department of Non-Formal Education. The quality of this major alternative to the formal secondary system, which serves many rural and some urban students, is seriously threatened by overburdened managers and student advisors.

2.6 PRIORITY NEEDS

The *Botswana Education and Human Resources Sector Assessment* identified six major needs in this sector. The 1985 update has estimated the extent to which these needs have been addressed and whether there are now different priorities that need attention.

Several priority concerns noted in the 1983 assessment have since been addressed. The need for caution and fiscal conservatism through the end of the decade, with regard to expansion in the education and human resources sector, is certainly reflected in the draft NDP 6. Government has begun major activities related to quality improvement concurrent with a program to expand universal access from seven to nine

years of basic education. It has also begun an expansion program in vocational and technical education. With the introduction of the Apprenticeship and Industrial Training Bill it will be possible to address the need to make better use of the private sector for technical training.

Several needs identified in the sector assessment, related to improved educational efficiency, remain a high priority. The need for donors to finance an increased share of development costs is still present. (The roles of selected donors and the role of Government in donor coordination are addressed below in Sections 3.2 and 3.3.) Coordination among Government agencies has improved since 1983. There are still opportunities for improvement in the non-formal subsector, and among units responsible for statistical analysis and staff placement.

The need for better information throughout the sector still exists. General and specialized information bases and skills to analyze them are needed to facilitate information-based decisions, better management, and improved planning and accountability.

Through the consultative process followed to develop this Country Plan the general needs stated above were used as a basis for discussions with representatives of Government and donor agencies concerned with development within the sector. These discussions identified specific needs throughout the sector. Table 1 contains the specific needs presented to the Country Plan team to be considered for inclusion in the plan. Several activities were identified as a priority by more than one individual or unit.

Careful review of the potential activities listed in Table 1 suggested that the majority of the activities could be placed in groups and that these groups comprised important focal points in terms of improving efficiency of the education and human resources system. Each of these areas of priority need will be described briefly, with examples as appropriate.

- School Management. Pupils learn in the classroom, and yet it is clear that the quality of education in many schools in Botswana is hampered by poor school management. In many cases, secondary level Headmasters and primary level Head-

Table 1
Botswana IEES Country Plan (1985)
 Potential Activities Identified

-
- Support information collection and applications:
 - Central Statistics Office (CSO) -- improve educational data processing capabilities
 - Department of Labour -- improve data collection and analysis capabilities
 - Unified Teaching Service -- develop more efficient record keeping on selection and placement of teachers. (Consider system similar to that used by Police Force.)
 - Bursaries -- improve awards and record keeping system, and linkages with the Directorate of Personnel (DOP)
 - Introduce word processing capabilities (CSO, Ministry of Education [MOE], National Institute for Development Research and Documentation [NIR])
 - Improve school information record keeping (MOE)
 - Use 16 microcomputers at Botswana Polytechnic (BP) for training in these applications
 - Assist the Department of Non-Formal Education:
 - Give short training courses in correspondence education, writing, and editing
 - Develop new correspondence courses, especially for practical subjects
 - Provide training in adult education
 - Train Headmasters and Headteachers:
 - Design sequence of courses
 - Develop guidebook for Headmasters
 - Conduct evaluation studies:
 - Identify and support effective inservice programs
 - Determine the relevance and effectiveness of Botswana Institute of Administration & Commerce (BIAC) and Institute for Development Management (IDM) courses
 - Conduct tracer studies (DOP, University of Botswana [UB], BIAC, IDM, etc.)
 - Develop finance courses for the Unified Local Government Service (ULGS)
 - Support the Schools Broadcasting Unit:
 - Evaluate school programs
 - Further develop English language program
 - Offer script writing course
 - Build additional Education Centres
 - Improve primary and secondary teacher training curricula:
 - Include training in the use of radio
 - Include computer awareness training
 - Train technical and vocational local staff
 - Train BIAC staff
 - Conduct new evaluation of the Brigades
 - Survey private schools to determine location and obtain information on students, teachers, etc.
 - Establish an education clearinghouse:
 - Set up a resource center
 - Provide support for newsletters such as *Primary Education in Botswana* and *Thuto*
 - Offer a time management workshop (MOE, Ministry of Home Affairs (MHA), Department of Labour)
 - Train Education Officers (as trainers, assessors, and administrators)
 - Provide support to local resource institutions (UB, IDM)
 - Train examiners responsible for marking Junior Certificate (JC) examinations
 - Develop a JC equivalency test for non-schooled Botswana
 - Provide support and guidance for MOE's new emphasis on special education
 - Develop a course on computer maintenance for BP
 - Provide high-level administrators and middle-level managers in both the public and private sectors with management skills
 - Train school bursars in basic accounting skills
-

teachers have been promoted to their management positions because they were good teachers or had taught for many years. They generally have little or no formal training as managers or educational leaders. As a result they often are unable to perform routine administrative duties or provide support to their teaching staff.

Effective school management is also hampered by problems such as poorly trained bursars who cannot handle the bookkeeping required by Government. School operations are sometimes restricted because of inefficiencies at the District level as a consequence of inadequately trained members of the Unified Local Government Service.

- Evaluation Applications. In a situation such as Botswana's, where much of the education and human resources sector is undergoing change (e.g. expansion of the Junior Secondary system and introduction of a new curriculum), and where there are discrepancies between manpower supply and demand, there is a need for a better understanding of which educational investments are the most effective. Several program areas were identified where evaluations are needed. These include inservice teacher training, consideration of the relevance and effectiveness of short-term training courses offered by local institutions (such as the Institute for Development Management and the Botswana Institute of Administration and Commerce), assessment of Brigades training, and identification of the external efficiency of vocational training and programs of study at the University of Botswana. It was stressed that short, targeted studies would be most useful. The University, the Institute for Development Management, and the National Institute for Development Research and Documentation all indicated an interest in collaborative research activities such as those mentioned above.

- Training Activities. A number of needs were cited that were focused on improving system capacity and efficiency. These included the identification of training needs related to use of computers and the development of mechanized systems for information management, design and implementation of evaluation activities, and the design of training courses. A number of requests for specific training were received (e.g. for teachers, vocational educators, and examiners).

- Resources Management Improvement. Meeting needs for better school management, evaluation applications, and training is of little use unless managers can use the information and improved skills that result from these activities. Thus, skills in planning methods, project design, project monitoring and evaluation, and cost analysis must be applied as well as developed throughout the sector.

- Knowledge Building and Networking. Several individuals stressed the need for establishing and maintaining a general information base on Botswana education. Currently there is no information depository in the Ministry of Education and several individuals interviewed stated that valuable information and historical documents may be lost if an effort is not made to gather, catalogue, and store them. Such information serves as an important knowledge base on the status of, and issues in, Botswana's education.

Several beginning educational networks exist in Botswana. These range from an association of teachers to groups of secondary level teachers of the same subject. These networks need support. The kind of support most needed is for substantive suggestions for members of the network rather than financial. Several individuals indicated interest in extending networks beyond the borders of Botswana.

A number of the identified needs fall within the priorities of the IEES Project. Before selecting activities, however, it is necessary to identify which goals and priority needs are now being addressed by Government and by donors. This is the topic of Section 3 below.

3. CURRENT AND PLANNED ACTIVITIES

This section presents current and planned activities in the sector. In order to identify plan activities that support Government priorities and make the most efficient use of the available funds, it is essential to review plans of Government and of major donors in the sector. Without this knowledge, and an understanding of the interrelationships between Government and major donor activities, there may be an unnecessary duplication of effort or the omission of activities critical to enhancing the efficient operation of the system. This section summarizes Government plans for the 1985-90 period and the plans of major donors. It also addresses donor coordination and identifies possible areas not addressed by current and planned activities.

3.1 PLANNED GOVERNMENT ACTIVITIES

Government is now preparing the *National Development Plan VI* (NDP 6), which will coordinate all sector activities from 1985 to 1990. Information for this section is based on the draft education chapter for NDP 6, dated February 1985.

- Primary Education. To increase access and improve the quality of primary education a number of activities must be undertaken. Government will build 2,600 classrooms during the NDP 6 plan period. In addition to the increased access provided by these new classrooms, double shifts will be used to extend the use of these classrooms. Teacher training, curriculum revision, and an increased availability of textbooks and instructional materials are the major activities planned to improve the quality of instruction. Government subsidy to primary education will increase from P20 to P30 annually per student and primary education will be decentralized through an increase in the number of Education Centres from three to twelve.

Providing special education for children with disabilities and learning problems is a new Government priority. A policy aimed at "mainstreaming" (that is, ensuring that disabled children are integrated into ordinary classroom and school activities) will be developed during the NDP 6 period. Activities also will improve linkages between preprimary and primary education.

- Secondary Education. The majority of Government's educational resources and activities during the NDP 6 period will support expanded access to secondary education, particularly the Junior Secondary cycle which leads to the Junior Certificate examination. In January of 1986 a 7+2+3 system of primary (7) and secondary (2+3) education will replace the current 7+3+2 system. Emphasis will be placed on expanding the lower cycle of the secondary system to provide access to nine years (7+2) of basic education for all children. This 7+2+3 transition stage will eventually be changed to a 6+3+3 system, retaining a commitment to universal access for nine years of basic education through the Junior Secondary cycle.

The expansion will require a number of activities to be closely coordinated. A high priority is the reduction of differences between the present two types of Junior Secondary schools as the quality of the current CJSSs is improved. This will call for additional schools and school building improvement, increased subsidies, and a larger and more highly qualified teaching force. Associated with this expansion is a massive curriculum revision and the introduction of three new subjects at the Junior Secondary level (art, music, and drama). There will be a gradual decentralization of administrative and professional support services for secondary education to the District level. By the end of the NDP 6 period, all Junior Secondary education will take place in CJSSs. The current Government and Government-aided secondary schools will have been converted to Senior Secondary schools where the third cycle of formal education, which leads to the Cambridge Overseas School Certificate (COSC), will be offered exclusively.

- Teacher Education. During the NDP 6 period all preservice training of primary school teachers will take place in the four teacher training colleges (TTCs) at Francistown, Serowe, Tlokweng, and Lobatse. Training of Junior Secondary teachers will take place at the new College of Education in Molepolole, and Senior Secondary teachers will be trained in current programs at the University of Botswana. Some specialized teacher training will be done at the Botswana Polytechnic and at Luyengo College in Swaziland.

Inservice teacher education will be a high priority during the NDP 6 period because of the large number of untrained teachers in the system, the introduction of new and unfamiliar curricula, and the Junior Secondary expansion. Inservice training will be continued through the Education Centres -- three of these exist and nine will be built during the NDP 6 period. The June 1985 update of the 1983 *Botswana Education and Human Resources Sector Assessment* indicates that inservice teacher training at both

primary and secondary levels needs immediate attention. Instructors for the TTCs are trained at the University of Botswana. Currently, the majority of instructors at the College of Education in Molepolole are expatriates and this is likely to be the case for the next several years.

- Curriculum Development. The major focus of the Department of Curriculum Development and Evaluation in the Ministry of Education has been the development of the Junior Secondary curriculum to be implemented in January 1986. Other activities for the NDP 6 period include:

"Consolidation of the Standard 4 diagnostic tests programme in the foundation subjects of Setswana, Mathematics and English.

The production of recorded lessons on tapes for the nine-year programme, particularly for the Junior Secondary schools.

Production of teaching aids for all primary and secondary schools and TTCs, including Molepolole [College of Education].

Development of a Botswana science kit by adapting the Zimbabwe science kit to suit the Community Junior Secondary Schools.

Production of educational magazines for all levels of education." (draft NDP 6, pp. 45-46)

- University Level Education. The University of Botswana will continue its role in providing skilled manpower for Botswana during the NDP 6 period. Where feasible, it particularly will consider offering additional programs in areas where increasing costs in foreign countries are making excessive demands on Botswana's overseas training funds. Faculty levels are projected to increase over the NDP 6 period to support its current activities, new efforts related to expansion, inservice training in cooperation with Government, providing applied research services, and a review of the bursaries policy.

- Technical and Vocational Education. Two major activities are planned for technical and vocational training for the NDP 6 period. The first is the construction of four Vocational Training Centres (VTCs). These will train artisan-level workers and will be located at Selebi-Phikwe, Jwaneng, Palapye, and Maun. It is anticipated that they will provide post-Junior Certificate training directed toward supplying labor for industry. The second major activity is the implementation of the Apprenticeship

and Industrial Training legislation. This will promote training in needed trades. Related to this, Government will establish an Industrial Training and Trades Testing Centre which will provide testing and certification as well as courses related to the new apprenticeship program.

- Non-Formal Education. The major activities of the Department of Non-Formal Education are continuation of the literacy program, with an expansion to encourage income-producing activities, and a further extension of its correspondence education program. Extension Educators will have responsibilities beyond the literacy program and these will include post-literacy activities, support for skills training, and developing linkages between formal and non-formal education.

- Bursaries. During the NDP 6 period Government will take a much more focused approach to bursaries. If possible, overseas training will be restricted to courses which are not available locally. Furthermore, training in nearby countries will be better utilized to the greatest extent possible. A bursary awards policy will link awards to areas of critical manpower shortages.

3.2 SELECTED DONOR ACTIVITIES

Multilateral and bilateral donor organizations have made significant contributions to the sector. Support generally has been for purposes such as construction and technical assistance for development programs. As the nation strives to improve the access and quality of education over the next decade it will continue to rely on donor activities to complement and supplement Government programs. Major activities of donors in this sector are summarized below.

The Swedish International Development Agency (SIDA) provides substantial support to the sector. It plans to continue its support to the Teaching Aids Production Unit (TAPU) of the Ministry of Education at Francistown. SIDA also plans to build new facilities for the Schools Broadcasting Unit of the Ministry of Education and to provide it with related technical assistance, particularly in the area of long-term training. In addition to working with the Ministry of Home Affairs in programs for libraries, national monuments, museums, and cultural research, SIDA also provides financial support to the Ministry of Education's Department of Non-Formal Education for the literacy program and may continue to provide furniture and equipment for

primary schools. The agency will continue to support the modest Educational Evaluation Fund and has decided to provide technical assistance to the Ministry of Education's new program in special education.

Funds from the Canadian International Development Agency (CIDA) support both secondary and higher education. With a basic grant from CIDA, the World University Service of Canada (WUSC) provides partial support (e.g. external costs such as travel and a post-tour settlement allowance) for approximately 30 Junior Secondary teachers. This will increase to 40 teachers by 1986. WUSC also provides a financial advisor for Junior Secondary schools. Two instructors at the Molepolole College of Education are also provided by WUSC. By January, this will increase to six. CIDA provides 10 instructors to the University of Botswana. It also provides some instructors to the Institute for Development Management (IDM). WUSC has an interest in involvement with academic training for the Botswana Brigades.

The German Agency for Technical Cooperation (GTZ) will continue to support the literacy program of the Department of Non-Formal Education through 1986. Its commitment to the Botswana Automotive Trades Training School in Gaborone remains a high priority. Support will include expansion into other areas such as panel beating, heavy plant equipment mechanics, and spray painting. A final area of interest related to the sector is industrial and trades testing related to the new Apprenticeship and Industrial Training legislation.

Support for the Botswana Polytechnic will continue to come from the government of the United Kingdom. Discussions have begun with the Bolton Institute of Higher Education regarding a possible linkage with the Polytechnic. This linkage would provide staff to the Polytechnic and would include courses related to use of computers based on the 16 microcomputers that were recently donated to the Polytechnic by Britain. British assistance will continue through the recruitment of teachers, particularly for secondary schools. In October of 1985 a new three-year plan of activities will be developed with Government.

Government has had a series of meetings with representatives of the World Bank and plans for a Fourth Education Project are currently under discussion. This loan is expected to provide funds to support the Ministry of Education's planned educational

expansion at the Junior Secondary level. Under consideration are additional schools and vocational training centers. The World Bank has also expressed an interest in cooperating with USAID in providing support for the production of Junior Secondary educational materials that will be developed under the JSEIP Project.

The Danish International Development Agency has provided funds for a technical wing of a Lobatse secondary school and Japan will provide funds for its educational equipment. The Netherlands contributes funds to the literacy program and to the Brigades.

Support to education is the major part of USAID's activities in Botswana. The first phase of the Primary Education Improvement Project (PEIP I) places particular emphasis on teacher training and related materials development to improve the quality of primary education. A follow-up project is anticipated. The PEIP II Project will train Education Officers and Headteachers, in addition to continuing the activities of PEIP I.

An agreement with USAID to implement the JSEIP Project has just been signed with Government. This project will increase the quality and efficiency of the expanded basic Junior Secondary education system and institutionalize the capacity of the Ministry of Education to develop, manage, and support the Junior Secondary education system. The three components of the project are: curriculum and instructional materials development; teacher education improvement; and enhancement of the capacity for educational planning, management, and supervision.

USAID is also implementing the Botswana Workforce and Skills Training (BWAST) project which provides long-term training in several critical areas. Four ministries are involved in the BWAST Project: Agriculture, Education, Local Government and Lands, and Home Affairs.

3.3 DONOR COORDINATION

The Ministry of Finance and Development Planning (MFDP) coordinates donor activities in all sectors. This coordination prevents duplication and ensures that donor activities are consistent with Government priorities. There is also informal coordination among donors.

Government's strong role in donor coordination is laudable and ensures careful and efficient use of funds and expertise. The lack of trained manpower to fill high level positions in the MFDP, however, means that much of this coordination is being conducted by expatriates. The need for Batswana who are trained for such roles has been described elsewhere in this document. Nevertheless, it is important to emphasize this need and to stress its importance for the long-term efficient and effective conduct of the work of the ministries involved in education and human resources development.

During the process of selecting activities for the Country Plan, a number of potential areas for donor coordination were identified. In discussions with individuals involved in education and human resources development a number of needs were identified that are not addressed by this plan either because of limited funds or because they do not fit well with the goals and priorities of the IEES Project. These are important needs, however, and it would be desirable for several of them to be attended to for Government to address the full range of its educational goals. Table 2 on the following page lists these needs which are seen as opportunities for donor activities to support Government's program in this sector.

Table 2

Opportunities for Donor Activities

- Assist the Department of Non-Formal Education:
 - Give short training courses in correspondence education, writing, and editing
 - Develop new correspondence courses, especially for practical subjects
 - Provide training in adult education
 - Develop finance courses for the Unified Local Government Service
 - Support the Schools Broadcasting Unit:
 - Evaluate school programs
 - Further develop English language program
 - Offer script writing course
 - Build additional Education Centres
 - Improve primary and secondary teacher training curriculum
 - Include training in use of radio
 - Include computer awareness training
 - Train technical and vocational local staff
 - Train Botswana Institute of Administration and Commerce staff
 - Conduct new evaluation of the Brigades
 - Survey private schools to determine location and obtain information on students, teachers, etc.
 - Offer a time management workshop (Ministry of Education [MOE], Ministry of Home Affairs, Department of Labor)
 - Train Education Officers (as trainers, assessors, and administrators)
 - Provide support to local resource institutions (University of Botswana, Institute for Development Management)
 - Train examiners responsible for marking Junior Certificate (JC) examinations
 - Develop a JC equivalency test for non-schooled Batswana
 - Provide support and guidance to MOE's new emphasis on special education
 - Develop a course on computer maintenance for Botswana Polytechnic
 - Train school bursars in basic accounting skills
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4. RATIONALE FOR COUNTRY PLAN ACTIVITIES

This section presents the long-range objectives of the plan and the basic strategies which focus on them. The specific activities derived from these strategies are presented next, followed by the criteria used for their selection.

4.1 LONG-RANGE OBJECTIVES

There are three long-range objectives of the plan, consistent with the overall goals of Government in the sector and with the general framework of the IEES Project. The first long-range objective is to improve the allocation of resources within the sector and it is based on the assumption that their significant increase in Botswana will not continue in the long term. Thus, major improvements in educational quality and access can best be attained by making more effective and efficient use of available resources. The second objective is to increase the individual and institutional capacity to plan, design, monitor, and evaluate the wide range of education programs. The third objective, which will be achieved as a result of the second one, is to improve the internal efficiency and the relevance of programs in the sector.

4.2 BASIC STRATEGIES

The basic strategies that are reflected in the Country Plan activities focus these activities on the long-range objectives. These six basic strategies are used to derive the activities given in the next section.

- Sector Assessment Approach. The first and most fundamental strategy underlying the plan is the use of the *Botswana Education and Human Resources Sector Assessment*, conducted in the October-November 1983 period, as the basic document for the identification of priority sectoral needs. The information in the sector assessment has been supplemented by the *Botswana Education and Human Resources Sector Assessment Update* that was conducted at the same time as this plan was prepared.

- Long-Term Planning. The second strategy is the long-term commitment of the human and financial resources, available within the IEES Project, to support the coordinated activities proposed in the plan. The initial five-year contract period extends until June of 1989 and may then be renewed for another five years without competitive bidding. This allows planning for activities to extend over a 10-year period, con-

tingent on continued availability of resources from the sponsor. There are many activities, especially those that focus on the improvement of individual and institutional capacities, which cannot be completed within the shorter time periods often associated with individual donor supported projects. Both long-range planning and commitment of resources are necessary to achieve the critical and ambitious objectives addressed within the plan.

- Collaborative Process. The third strategy in the plan development is the collaborative process used to identify the proposed activities. The Country Plan team worked under the guidance of an inter-ministerial Reference Group. Interviews were held with numerous individuals (Annex A), as recommended by the Reference Group. The target opportunities and proposed activities of the plan thus reflect the wisdom and consensus of planners and educators in Government as well as the advice of the IEES Country Plan team, professional staff of the USAID/Botswana Mission, and the local staff of major bilateral and multilateral donors.

- Flexible Resources. The fourth strategy, which particularly contributes to the responsiveness of the plan activities, is the flexibility of allocation. The Country Plan, for example, is not a plan for a fixed five-year period. It will be revised each year with the terminal year extended for a year at the time of each revision. This rolling five-year approach to planning encourages rapid adjustments of resources on the basis of changing requirements. Also, since the funds for the proposed activities are already available within the IEES Project, their release for specific applications will not be delayed by procedural and documentation requirements often associated with projects of a larger scope. These funds are available from a central source of AID funds in Washington, with USAID/Botswana support and concurrence, but no matching contribution is required from USAID/Botswana or Government. The combination of annual revisions of proposed activities within the plan, and the ease of funding reallocations to support changing needs, makes this strategy particularly effective for attaining the long-range objectives of the plan.

- Phased Collaboration. Collaborative activities, involving joint research and development applications by Government staff and IEES Project staff, comprise an important fifth strategy. This will be discussed more fully below in Section 5.1, but essentially is founded on the assumption that basic training with an applied emphasis,

followed by collaborative applications of new knowledge and skills, is an effective way to improve individual capabilities. A number of collaborative activities are proposed within the plan, with the degree of IEES Project staff participation phasing out during the later stages of the project. The sector assessment that was done in 1983, for example, was conducted with roughly 10 person-months of technical assistance from visiting specialists. The sector assessment proposed for 1989 is planned to be conducted mostly by Government staff with the support of only about 3 person-months of external specialist assistance.

- Institutional Focus. The sixth strategy is the emphasis on the improvement of institutional capabilities related to the long-range plan objectives. The Ministry of Education will be the major focus for the activities related to improving institutional capabilities, as explained more fully below in Section 5. Specific institutional capabilities will be related to information management, program evaluation, project design and management, school administration, and teacher utilization. The Unified Teaching Service is given special emphasis.

- Knowledge Building and Networking. An emphasis on knowledge building and networking comprises the seventh strategy. The assumption underlying activities derived from this strategy is that shared problem-solving experiences can contribute significantly to development. This will be encouraged by establishing an information clearinghouse in the Ministry of Education that will be part of an international network of participating countries. This clearinghouse will serve as a depository and national distribution center for worldwide information related to improving educational efficiency.

4.3 OPPORTUNITIES FOR ACTIVITIES

This section gives an overview of the opportunities for activities that are derived from the basic strategies that have been presented. The process used to identify the specific opportunities has been described above in Section 1.2. This overview of the six sequences of activities is expanded below in Section 5, which presents details of the interrelationships among the proposed activities with respect to the long-range objectives of the plan.

- Training Group. The training group consists of two activities, both related to improvement of the basic skills necessary to increase system capacity and efficiency. These activities are proposed for the first year of the plan, and provide foundation skills for subsequent activities. The training group will develop skills, knowledge, and application plans in these two areas:

- Computer systems design and applications.

- Evaluation design and applications.

- Resources Management Improvement Group. This group of proposed activities will enhance the individual and institutional capacity of the Ministry of Education to plan, design, and monitor programs in the sector and to perform the cost analyses required to support improvement of system efficiency. These activities will build upon the foundation provided by the training in computer systems design and applications. The resources management improvement group will consist of an integrated series of workshops, and it is intended that the same individuals attend the full series so that the content of the workshops can be cumulative with regard to the long-range objectives of the plan. The group will consist of the following workshops:

- Planning methods.

- Project design.

- Monitoring and evaluation.

- Cost analysis.

- School Management Improvement Group. This group will consist of the design of courses for primary school Headteachers and secondary school Headmasters in the skills and knowledge required for improving the management of schools. This will contribute to improved system efficiency by helping school managers make better use of the human and material resources under their control.

- Evaluation Applications Group. This proposed group of activities will improve the individual and institutional capacity of the Ministry of Education to design, implement, and interpret program evaluations. The activities will build upon the evaluation design and applications outcomes of the training group described above, and will consist of collaboratively implemented evaluation studies in the following areas:

Primary inservice teacher training.

Vocational and technical program relevance and internal efficiency.

Headteacher and Headmaster inservice training.

Junior Secondary and University of Botswana tracer studies.

● Knowledge Building and Networking Group. The activities proposed within this fifth group will encourage professional contacts among the nine countries participating in the IEES Project, so that experiences can be shared with respect to the identification and solution of problems common to developing nations. An information clearinghouse will be established in the Ministry of Education that will receive and distribute information related to achieving all long-range objectives of the plan. The following two activities are proposed:

Attendance at two IEES international conferences or workshops.

Botswana IEES Information Clearinghouse support.

● Efficiency Improvement Group. This final group represents long-term results of the plan. Future revisions of the plan will include specific activities to measure progress toward these goals. They are cited here to indicate the rationale for the specific activity groups presented within this plan. The activities in the plan will improve efficiencies of the sector in the following ways:

Improved management of resources.

Improved project design, monitoring, and evaluation.

More effective and efficient teacher recruitment, assignment, and targeted inservice training by computerization of the Unified Teaching Service.

Better use of teachers and instructional materials through improved management of primary and secondary schools.

4.4 SELECTION CRITERIA

Many activities were proposed for inclusion in the country plan by the numerous persons interviewed. Because of limited resources, only a selected number have been included among the proposed activities. The selections were made on the basis of four criteria. First, all included activities contribute to the identified target opportunities presented above in Section 4.3. Second, the activities are all consistent with the overall efficiency improvement and capacity building goals of the IEES Project. Third, the activities focus on priority objectives not fully addressed by current or planned ac-

tivities of Government or major donors, as reviewed above in Section 3. Fourth, the activities are within the financial limitations of resources available within the IEES Project. This limitation, as explained to the Reference Group in April of 1985, is approximately P333,000 (\$200,000) each year for a five-year period.

5. PROPOSED ACTIVITIES

This section presents and explains the interrelationships among the activities proposed in the plan. Their timing is displayed in a master schedule and an explanation is given for the estimation of their individual costs.

5.1 SCHEDULE OF ACTIVITIES

An overview of the proposed activities is given in Annex C. This schedule indicates the proposed timing, sequence, and interrelationships among all plan activities for a five-year period. The time covered by the plan is from July of 1985 through September of 1990. For planning convenience the first plan "year" includes the 15-month period from July of 1985 through September of 1986. This has been done so that the plan years will thereafter coincide with the financial years of the IEES Project.

Activities are scheduled by month within the first plan year, and by quarter for years two through five. In subsequent annual revisions of the plan the scheduling will be by month for the year immediately following the revision. The exact timing of an activity is indicated by the small dot below the rectangular enclosure containing the activity name (e.g., the Computer Systems Design Workshop is scheduled for January of 1986).

Four general types of activities are shown in Annex C, as indicated by the labels along the left side: preliminary activities, training activities, collaborative activities, and knowledge building and networking activities. The *preliminary activities* include those which will have taken place before the first plan year. These four activities are shown in the upper left-hand corner of the schedule along with their dates. They include the 1983 sector assessment, the planning and design for the JSEIP Project, the sector assessment update conducted simultaneously with the preparation of this plan, and the preparation of this first plan in the series.

The *training activities* shown in Annex C all will improve individual skills in areas related to the long-range objectives of the plan. These activities, as discussed below, will be conducted in a workshop format by specialists provided within the IEES Project. The *collaborative activities* represent activities by trained Batswana working together with IEES specialists. As explained above in Section 4.2, a phased collabora-

tion is planned so that trained Batswana will have increasingly more responsible roles in these joint activities during the later years of the plan. Finally, the lower rows of Annex C indicate the scheduled *knowledge building and networking activities*.

The following paragraphs describe the integrated aspects of the plan with respect to the target activities identified above in Section 4.3. This discussion will be organized around these six major objectives: *Computer Systems Design and Applications* (including applications for management information systems and for project design and management), *Evaluation Training and Applications*, *School Management Training*, *Country Plan Revisions*, *Sector Assessment Updates*, and *Knowledge Building and Networking*.

- Computer Systems Design and Applications. There are six activities for the management information systems objective. Their major goal is to provide training, hardware (microcomputers), and software so that management information systems can be designed and implemented for the Unified Teaching Service (UTS), the educational statistics unit of the Central Statistics Office (CSO), the Ministry of Education unit responsible for bursaries and general school information, and the information unit of the Department of Non-Formal Education.

The first activity in this series is the *Computer Systems Design Workshop* scheduled for January of 1986. This workshop, which is described more fully in Annex D, will last for one month. Participants will be from the UTS, CSO, the bursaries and general school information unit of the Ministry of Education, the information unit of the Department of Non-Formal Education, and from other units that are interested in the design of management information systems for their own applications. There will be two main objectives of the workshop. The first will be to familiarize participants with the general capabilities of microcomputers for data base management, electronic spreadsheets, and word processing. The second objective will be to produce operational plans for hardware, software, and training required to establish management information systems to serve the requirements of the parent organizational unit of each participant. Particular focus will be on the design of systems for the UTS, CSO, for bursaries and school information within the Ministry of Education, and the information unit of the Department of Non-Formal Education.

The next set of activities in this series will focus on the UTS. This will consist of four consultancies, as shown in Annex C, from March of 1986 through the third

quarter of the second plan year (April-June 1987). The first of these consultancies - *UTS Set-Up and Training* - will be the first step in implementing the management information system that will have been designed in the earlier workshop. This will include providing the appropriate computer equipment and the necessary software, along with initial staff training. The next three consultancies in this series - *UTS Training I*, *UTS Training II*, and *UTS Training III* - will provide additional on-site training as required for the full implementation of the system.

A combined activity in this series is scheduled for the CSO unit responsible for educational statistics, the bursaries and general information unit of the Ministry of Education, and the information management staff of the Department of Non-Formal Education. The *CSO Set-Up and Training* activity is scheduled for May of 1986. The purpose will be to provide any hardware, software, and training needed to implement the system designed in the prior workshop. Because of the familiarity of the staff of these units with computer applications, only a single activity is scheduled for this implementation.

Improved project design and management capabilities is the second major objective of the *Computer Systems Design and Applications* set of activities. This consists of an integrated series of four workshops scheduled between the first quarter of the third plan year (October-December 1987) and the third quarter of the fourth plan year (April-June 1989). Each of these workshops will last for one month and it is expected that participants all will have attended the *Computer Systems Design Workshop* or will have knowledge and skills equivalent to those covered in the earlier workshop. It is also expected that this group will attend all four of the project design and management capabilities workshops.

The format for these workshops, whose scheduling is shown in Annex C, will be practically oriented. Exercises will be taken from actual assignments associated with the work of the participants and will not be from textbooks designed for general use or for applications specific to non-comparable situations. Assignments will be taken from on-the-job requirements to ensure that skills and knowledge transmitted will be of direct use to the participants. The general skills and knowledge of the workshop series will comprise an integrated set that will be job specific. The topics of the workshops, in the order that they will be held, are as follows: *Planning Methods Workshop*, *Project Design Workshop*, *Monitoring and Evaluation Workshop*, and *Cost Analysis Workshop*.

● Evaluation Training and Applications. The goal of this series of activities is to develop individual and institutional capabilities required to design, implement, and apply the results of program evaluations in the sector. The five activities in this series will develop the required expertise in an initial training workshop, and then collaboratively undertake four program evaluations in areas that are basic to the objectives of the Ministry of Education.

The first activity is the *Evaluation Design Workshop* that is scheduled for January of 1986. Participants in this month-long workshop will be Ministry of Education staff responsible for planning and coordination of inservice training for primary school teachers and Headteachers, inservice training for secondary school Headmasters, vocational and technical training, Junior Secondary education, and university-level education.

The *Evaluation Design Workshop* will focus on the presentation of general principles of program evaluation, as described more fully in Annex E, but each participant will prepare a specific evaluation plan in collaboration with the workshop leader. These plans will comprise the basis for program evaluations to be jointly conducted later during the plan period. Each of the program evaluations that will comprise the syllabus for this workshop has been selected to provide important information for future resource allocations of the Ministry of Education.

The four applied activities in this series are shown in Annex C. The first of these - *Primary Inservice Evaluation* - is scheduled for the second quarter of the second plan year (January-March 1987). The results of this evaluation will be of particular interest to the Ministry of Education because of the diversity of activities within this inservice area and the lack of comparative evaluative information on their effectiveness. The results will improve the allocation of resources in this important area.

The second applied activity - *Vocational and Technical Evaluation* - will take place in the second quarter of the third project year (January-March 1989). This evaluation will examine the relevance and the internal efficiency of a range of vocational and technical training programs. Because of their generally high unit costs for instruction, and their important role in the supply of trained manpower, the information on these programs will be very useful for planning purposes.

Management of schools affects student achievement by coordinating instructional resources, both human and material. Improving school management has been identified as a highly effective way to improve student performance. Because of the im-

portance of school management to the efficient use of scarce resources, a third applied activity in this series will focus on evaluating the training of primary school Headteachers and secondary school Headmasters. Implementation of this program evaluation, which will have been designed in the *Evaluation Design Workshop*, will take place in the fourth quarter of the third project year (July-September 1988). The *Headteacher and Headmaster Course Evaluation* will be jointly undertaken by Botswana and IEES Project specialists.

The final application in the evaluation series, the *Junior Secondary and University of Botswana Tracer Studies*, will take place in the second quarter of the fourth plan year (January-March 1989). The evaluation will be the one designed during the *Evaluation Design Workshop* of the first plan year, and will be collaboratively implemented with Botswana and IEES Project specialists. The evaluation will measure the effects of the Junior Secondary and University of Botswana programs with regard to employment and other post-schooling activities of graduates. This information will be especially useful to educational planners with regard to program relevance.

- School Management Training. This set of activities will result in the design of a series of courses to train managers of primary schools (Headteachers) and secondary schools (Headmasters). These inservice training courses, which are described more fully in Annex F, will focus on improving management of resources in primary and secondary schools. Many school managers have been promoted from positions in teaching and have had no formal training in administration. Educators consistently report that many school managers do not have even the most rudimentary skills necessary for efficient school administration.

The *Secondary Headmasters Course Design* activity is scheduled for July of 1985. An IEES Project specialist will spend one month preparing the syllabus and instructional materials for a one-week course for secondary school Headmasters. The materials will be designed so that the instructions for their use will be contained in the materials themselves. This will make the course easy to administer, ensure consistency in the quality of administration when the course is repeated, and allow participants to refresh themselves on the course contents when they have returned to their schools. The IEES Project specialist will observe the course being administered once and revise the materials, if required, on the basis of their effectiveness in actual classroom use. This activity is only concerned with the design of this course, and its administration will be done by the existing Ministry of Education capabilities in this area. Discus-

sions with Ministry of Education staff indicated that their time restrictions do not allow for them to design this course.

The next activity in the *School Management Training* series is the *Primary Headteachers Course Design* that is scheduled for October of 1985. The same approach will be used as for the Headmasters course, with a specialist spending one month on syllabus and instructional materials preparation, observing the one-week course in use if scheduling permits, and revising as necessary. As with the Headmasters course, this activity covers course design but not course administration.

- Country Plan Revisions. The flexible use of resources available for the plan, as explained above in Section 4.2, is facilitated by annual revisions of the plan. The schedule of activities in Annex C shows that these revisions are scheduled for May of 1986, and annually thereafter through the third quarter of the fifth plan year (April-June 1990). At the recommendation of the Reference Group for the preparation of this initial plan, the 1989 annual revision will include an evaluation of all IEES Project activities in Botswana up to the time of that revision.

At the time of each annual revision, as stated in Section 4.2, the terminal date of the plan will be extended for one year. This rolling five-year plan approach will allow activities and resources to be adjusted to changing needs and on the basis of feedback from initial activities. These revisions will be collaboratively undertaken with members of the planning staff of the Ministry of Education and any other staff designated by Government.

- Sector Assessment Updates. The initial *Botswana Education and Human Resources Sector Assessment* was conducted in October through November of 1983 and published in June of 1984. The basic intent of the IEES Project is to prepare an update of the sector assessment, for each of the nine participating countries, on an annual basis. Experience with the *Botswana Education and Human Resources Sector Assessment Update* has suggested that updates in Botswana will not be needed each year, and that the resources used for these updates could better be applied to more critical plan activities. Consequently, a single update has been scheduled for the second quarter of the second plan year (January-March 1987), two years from the first update. In place of the next update, the Reference Group recommended that the entire sector assessment be repeated and this has been scheduled for the fourth quarter of the fourth plan year (July-September 1989). This will make this important information available in

time for the preparation of the *National Development Plan VII*. The allocation of IEES Project resources for this activity is considerably less than for the initial sector assessment, as it is expected that this second assessment will be done collaboratively with significant levels of participation by Ministry of Education staff.

- Knowledge Building and Networking. The first activity of this series is attendance at the *IEES International Workshop* scheduled for November of 1985. Two or three attendees from Botswana will be sponsored with funds from the IEES Project, and are expected to be professional Ministry of Education staff concerned with planning and related areas. The workshop will focus on a theme related to the overall IEES Project goals of improved efficiency and capacity building in the education and human resources area. Participants will be expected to present papers on projects in their countries related to the workshop theme. A second workshop, with a related format and theme, is scheduled for the third quarter of the fourth plan year (April-June 1989). It is likely that this workshop will include reports of country plan activities from the nine countries participating in the IEES Project. Each workshop will last for one week.

The knowledge building activities will begin with the *Information Clearinghouse Set-Up* that is scheduled for the first quarter of the second project year (October-December 1986). A specialist in the dissemination of information will help to establish a clearinghouse in the publications unit of the Ministry of Education. This will include general instructions in storage and retrieval of information as well as means of dissemination. The information received and disseminated will focus on the general theme of efficiency in the sector, and target audiences will include program planners and managers, Headteachers, Headmasters, and teachers at all levels of the educational system.

The plan provides for continuing support for the clearinghouse through the entire plan period, from October of 1986 through September of 1990. The degree of support should provide for the services of a full-time local librarian, expansion of current publications of the Ministry of Education to include information supplied by the IEES Project, and the establishment of a small library of carefully selected materials to support the general goal of improving efficiency.

5.2 COSTS

The funds available for plan activities, as explained to the Reference Group in April of 1985, are an average of approximately P333,000 (\$200,000) annually for the five-year period. Costs for the activities described above and displayed in Annex C have been roughly estimated to ensure that this five-year total will not be exceeded. This final section of the plan describes these cost estimates.

A Cost Unit of P41,700 (\$25,000) was used as the basis for making these estimates. More refined estimates will of course be prepared for each activity at a later date. For each activity an estimate was first made of the amount of IEES Project specialist staff time that would be required in Botswana. Each month of such field time was estimated to require approximately P31,600 (\$19,000), including preparation time, international and local transportation costs, lodging and meals, field time, and miscellaneous items. An additional P10,000 (\$6,000) was added to the cost of each person-month of field time for material support. In some cases, such as the *UTS Set-Up and Training* activity, an additional Cost Unit was added for computer equipment, software, and training manuals.

Each rectangular course description in Annex C contains the number of Cost Units estimated for each activity. At the lower edge of the annex the total of the Cost Units are given for each plan year: 14 (year one), 7.5 (year two), 6 (year three), 10 (year four), and 1.5 (year five). This represents a total expenditure for the plan of 39 Cost Units or P1,625,000 (\$975,000). These costs will be updated and revised whenever there is a change in the plan.

Botswana IEES Country Plan (1985) -- Reference Group

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Mike Small, Manager, Government Computer Bureau, Ministry of Finance and Development Planning

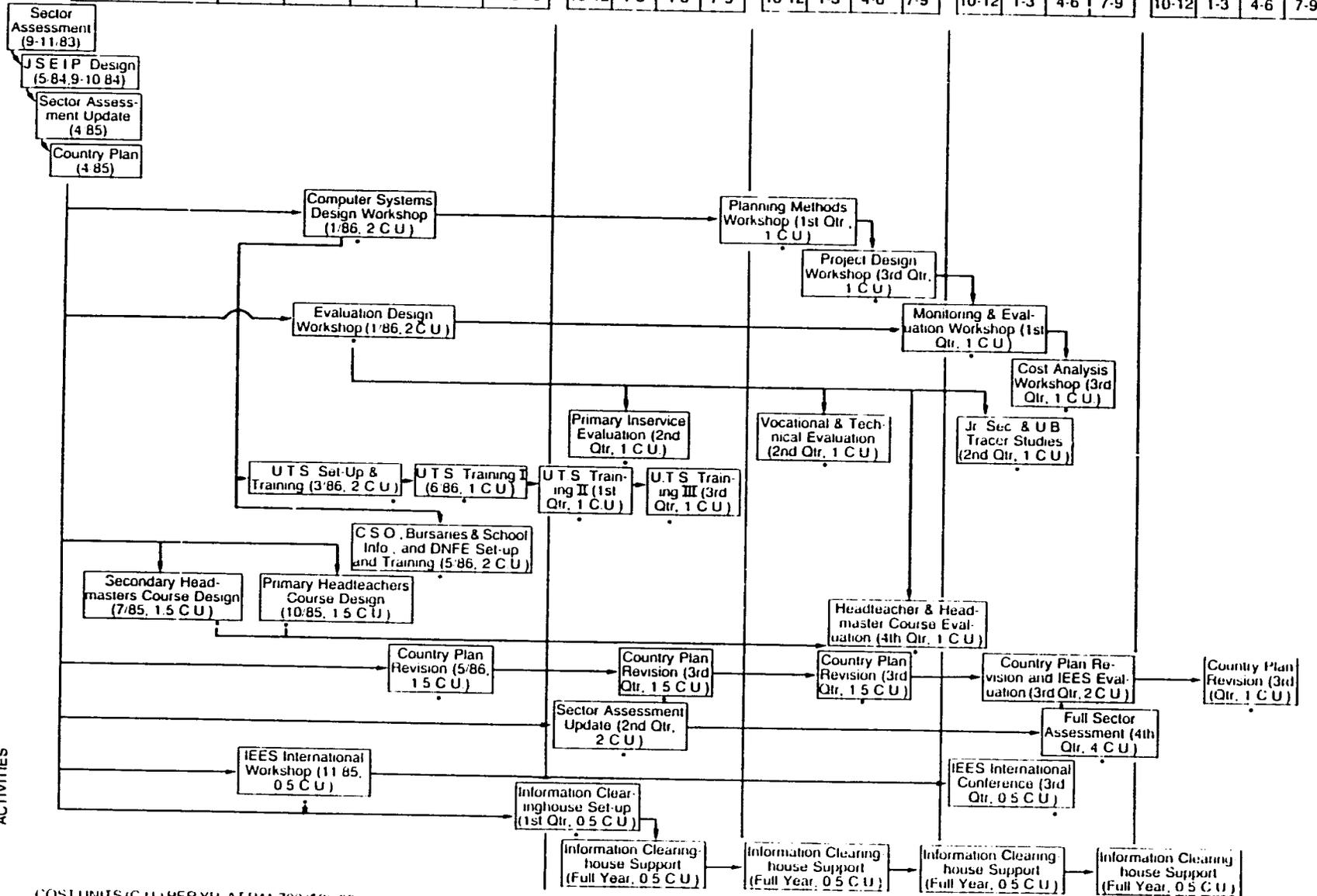
Jakes Swartland, Acting Permanent Secretary, Ministry of Education

Nnagolo Tau, Literacy Programme, Department of Non-Formal Education

BOTSWANA IEES COUNTRY PLAN (1985)

PLAN YEAR	ONE					TWO				THREE				FOUR				FIVE							
CALENDAR YEAR	85	85	86	86	86	86	87	87	87	87	88	88	88	88	89	89	89	89	89	90	90	90	90		
MONTH	7-8-9	10-11-12	1-2-3	4-5-6	7-8-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9

C-1
 PRELIMINARY ACTIVITIES
 TRAINING ACTIVITIES
 COLLABORATIVE ACTIVITIES
 KNOWLEDGE BUILDING AND NETWORKING ACTIVITIES



COST UNITS (C U) PER YR AT P41,700 (\$25,000) — 14 (YR 1) — 7.5 (YR 2) — 6 (YR 3) — 10 (YR 4) — 1.5 (YR 5) — (1) 1st IEES CONTRACT PERIOD ENDS
 TOTAL 39 C U P1,625,000 (\$975,000)

ANNEX C

Activity Name. *Computer Systems Design Workshop*

Purpose. This workshop will have two objectives. The first will be to familiarize participants with the broad range of capabilities of microcomputers, with an emphasis on the three areas of data base management, electronic spreadsheets, and word processing. The second objective will be to produce operational plans for hardware (microcomputer and related peripherals), software, and staff training to establish management information systems to serve the parent organizational unit of each participant. The long-range outcome of this workshop, as supported by related activities in the Country Plan, will be to establish management information systems for the Unified Teaching Service, the educational statistics unit of the Central Statistics Office, and for bursaries and school information within the Ministry of Education.

Rationale and Description. The relationship of this activity to the long-term objectives, basic strategies, and target opportunities is presented in the text for this plan. The overall goal will be to improve the base of information available for the more efficient allocation of resources, supported by an improved individual and institutional capacity for information management.

Scope of Work. The workshop will last for one month. The first week will be devoted to basic familiarization with the capabilities of microcomputers. If the 16 new microcomputers at the Botswana Polytechnic are available, they will be used so that course participants can have direct experience with hardware. The second, third, and fourth weeks will be devoted to the collaborative preparation, between participants and instructors, of operational plans for computerization of information storage, as well as other microcomputer applications, for each participant's parent organizational unit. This will include plans at least for the UTS, the educational statistics unit of the CSO, for bursaries and school information in the Ministry of Education, and the information unit of the Department of Non-Formal Education. Other participants will prepare similar plans for their units.

Schedule. The course will take place in January of 1986.

Resources Needed. Two instructors will be needed at Gaborone for a month-long period. Both should have had experience working with computers in developing countries. Their combination of skills should include the following: microcomputers and related peripherals available for the applications described above in this annex, hardware and software specifications for the equipment that can be maintained in Botswana, applications of standard software packages for the uses described above, packaged training manuals for software, and the design of training courses for microcomputers. In addition to these two instructors, basic training manuals for microcomputers will be needed.

Outcomes. At the completion of this workshop the participants will be familiar with the range of applications for microcomputers, with particular emphasis on the needs of their own organizational units. They will have produced an operational plan for computerizing each of their own parent units, and this plan will contain sufficient detail for an estimate of costs and time needed for full implementation. These skills and plans will form the basis for implementing the plans with the support of other activities described in this document.

Costs. The cost for this workshop will be approximately P83,000 (\$50,000).

Activity Name. *Evaluation Design Workshop*

Purpose. This workshop will have two objectives. The first will be to teach participants the general principles of program evaluation. These principles will include information about the design, implementation, and interpretation of the results of program evaluation. The second objective will be to prepare specifications for evaluations of critical instructional programs within the sector. The long-range outcome of the workshop, as supported by related follow-up activities described in the Country Plan, will provide important information to improve the allocation of resources in the sector.

Rationale and Description. The relationship of this activity to the long-range objectives, basic strategies, and target activities is presented in the text for this plan. The focus is on providing the Ministry of Education with the capacity to evaluate programs, and to collaboratively conduct program evaluations in the highly critical areas of primary school inservice teacher training, vocational and technical training relevance and efficiency, Headteacher and Headmaster training courses, Junior Secondary education, and University-level education.

Scope of Work. The workshop will last for one month. The first week will be devoted to presentation of general principles of program evaluation. This will particularly emphasize design and statistical techniques for the evaluation of field studies, where many of the usual experimental controls are not possible. Examples will be taken from fields studies in developing countries, similar to those that are likely to be encountered in Botswana. The second, third, and fourth weeks will be devoted to the collaborative preparation, between the participants and instructors, of detailed evaluation plans for the numerous programs in primary inservice teacher training, vocational and technical training with an emphasis on relevance and efficiency, inservice training courses for primary school Headteachers and secondary school Headmasters, and of tracer studies for graduates of Junior Secondary schools and the University of Botswana.

Schedule. The course will take place in January of 1986.

Resources Needed. Two instructors will be needed at Gaborone for a month-long period. Both of these individuals should be well grounded in the principles of evaluation work with field projects in education. They should have demonstrated capabilities, through work experience and relevant publications, in the field of educational evaluation. Both should have had experience with the actual conduct of educational evaluations in developing countries. Other resources needed include instructional materials of sufficient quantity to leave with each participant a small library of ten-to-fifteen relevant books and manuals on evaluation. Each participant should also be provided with a one-year subscription to one or two journals in the field of education.

Outcomes. At the completion of the workshop the participants will be familiar with the basic principles of program evaluation, with a particular focus on education. They will be familiar with research designs and special statistical techniques that are appropriate to evaluating programs already in operation in field settings. Participants will be able to design evaluations to provide decision makers with relevant information about program effectiveness. In addition, each participant will have produced an operational plan for one of the key programs mentioned above in this annex. These plans will become the basis for program evaluations to be conducted later as part of the Country Plan.

Costs. The cost for this workshop will be approximately P83,000 (\$50,000).

Activity Name. *Secondary Headmasters Course Design and Primary Headteachers Course Design.* (The same specifications essentially apply to both of these courses).

Purpose. The purpose of these two consultancies is to design inservice courses to train managers of primary schools (Headteachers) and secondary schools (Headmasters) to better manage the teachers and other resources in their schools. The long-range outcome is to improve the efficiency and effectiveness in the primary and secondary schools through better management.

Rationale and Description. The relationship of this activity to the long-term objectives, basic strategies, and target activities is presented in the text for this plan. The focus is based on a leveraged use of training to improve efficiency and effectiveness through better school management. It is consistently reported that many school managers lack even the most basic skills related to their assignment, and that many have had little or no formal training related to these skills.

Scope of Work. Each consultancy will last for about five or six weeks. The first four weeks will be devoted to identifying the skills to be used as the basis for development of the syllabus and instructional materials for a one-week course for secondary school Headmasters (and for primary school Headteachers). The package of instructional materials will be prepared so that they will contain full instructions for the person who will administer the inservice course. This will make it easier to administer the course consistently over repeated offerings and, probably even more critically, it will allow the participants to study the contents themselves when they return to their schools. The consultant will observe the course being taught once, if scheduling permits, and then revise the materials on the basis of their observed effectiveness if so required.

Schedule. The *Secondary Headmasters Course Design* consultancy will take place in July of 1985 and the *Primary Headteachers Course Design* consultancy will take place in October of 1985.

Resources Needed. One consultant will be needed at Gaborone, for each of the two activities, for a five or six week period. Each consultant should be thoroughly familiar with principles of instructional design and materials development, and have demonstrated capabilities in these two areas. They should have had work experience in the preparation of instructional materials in developing countries. They must be familiar with conditions in developing country schools and be able to perform the needs analysis that will form the basis of the syllabus for the courses to be prepared. Other resources will include funds for the typing and duplication of sufficient course materials for fifty participants.

Outcomes. At the completion of each consultancy there will be an effective course for Headmasters (or Headteachers) that will significantly improve their ability to manage the resources available at their schools. If scheduling permits, each of these courses will be revised on the basis of the consultant observing the course given once within an inservice setting.

Costs. The cost for each of these workshops will be approximately P62,400 (\$37,500).