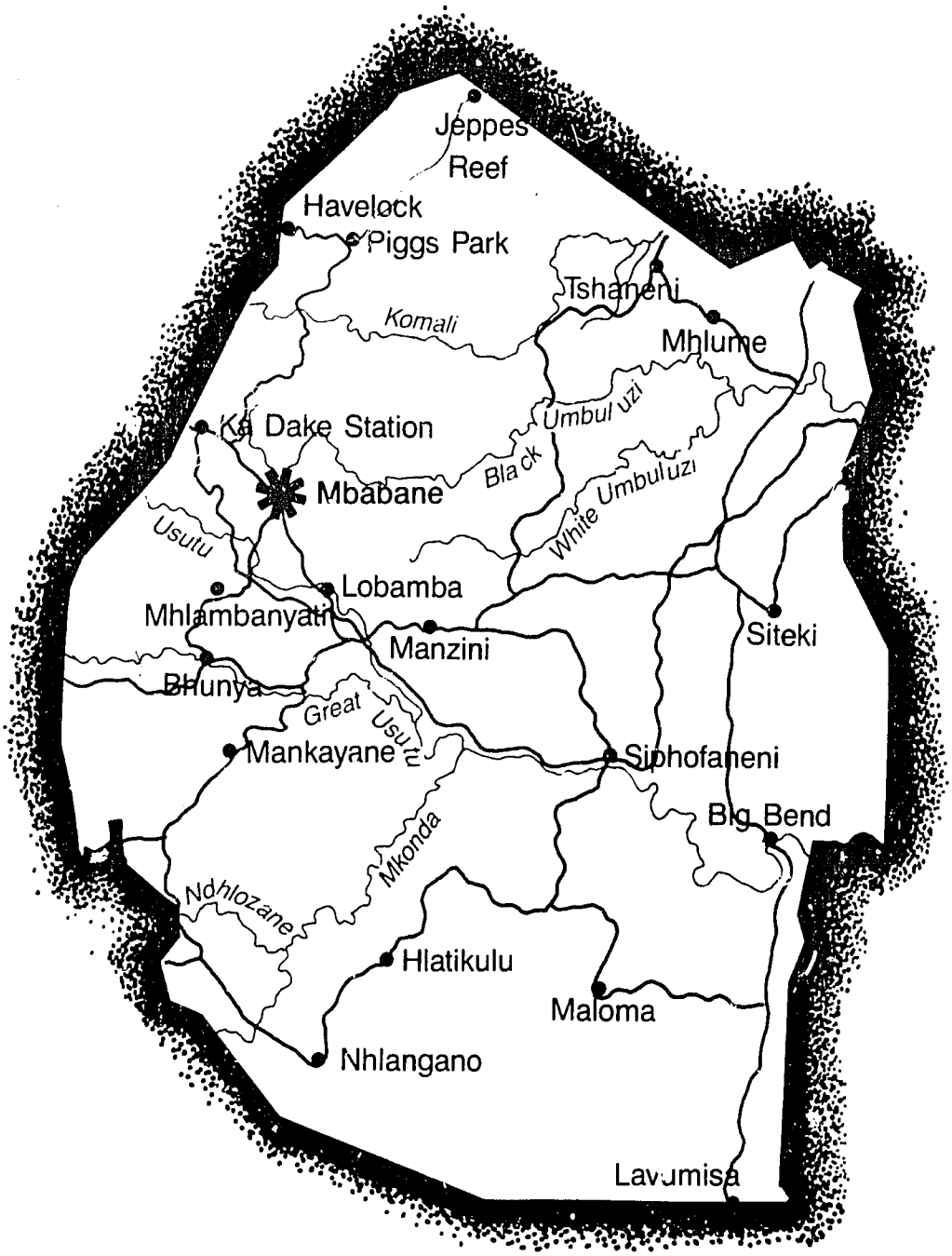
Swaziland
Education and Human Resources Sector Assessment

January 1984



Volume I

Agency for International Development
Washington, D.C. 20523

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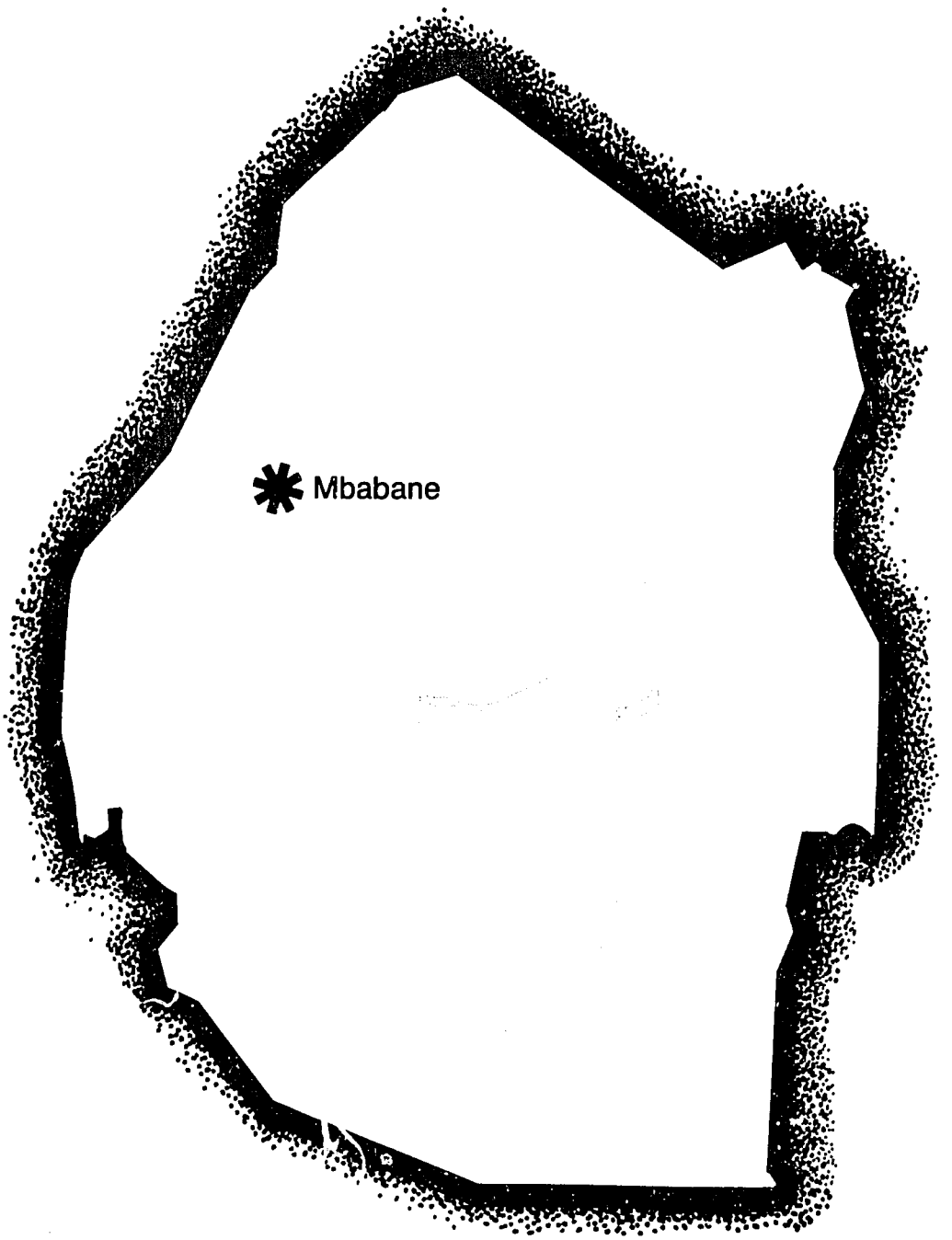

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FOREWARD

This modified assessment of the education and human resources (E/HR) sector in Swaziland was to be especially concerned with identifying "the specific causes of wastage and inefficiency in the Swazi education system and making priority ordered recommendations to address these problems." It was also understood that this Report should take into consideration and benefit from previous observations and recommendations of studies and documents, published and unpublished, which have been prepared and focus on education and training in Swaziland. These supporting documents which have been of significant value in the preparation of this Report are acknowledged herein. However, we would like to give special acknowledgement to the assistance received from a previous study which the Agency for International Development contributed to, The Status and Development of Education in the Kingdom of Swaziland: Education and Training Sector Review, November 1981, and to the Team Coordinator of that Report, G. D. Bishop, who generously made himself available to members of this Report's team to review and expand upon his team's study.

Under funding provided by the Office of Education and Human Resources Development of the African Bureau of AID, and with administrative support and assistance provided by that office and by USAID/Mbabane, the Team conducted its research in Swaziland over a period of approximately six weeks from late October, 1983, through early December, 1983. During that time in Swaziland, the Ministry of Education provided excellent support and assistance to the Team and the Educational Planning Unit of the Ministry made itself available to assist the Team upon request. This level of commitment on the part of the Ministry and its Planning Unit was invaluable and especially appreciated given the heavy competing demands which were being placed on their energies and resources during that same period.

Pursuant to previously arranged procedure, a first draft of the report was reviewed by Ministry of Education officials and this was subsequently followed by discussions between these officials and the African Bureau's Project Officer, Victor Barnes, and the Report Team Leader, William M. Rideout, Jr., in Mbabane in early July 1984. In those meetings it was decided that the final version of the Report would be prepared in two volumes rather than one and that the revised format would be reviewed by the Ministry prior to the Report's final submission. Following the accomplishment of this revision, Ministry officials on February 26, 1985, made additional written comments and recommendations which the Team

responded to and which have been reflected in the final version of the completed Report. The Report has been prepared by the following consultants:

1. Lawrence Donnelley, Ph.D.
   Chairman, Department of Economics
   University of Delaware
   Newark, Delaware, U.S.A.
   (Economist and Financial Analyst)

2. David H. Hampson, Ph.D.
   President, Roundel Corporation
   Washington, D.C. and
   Adjunct Associate Professor
   University of Southern California
   Los Angeles, California, U.S.A.
   (Specialist in Educational Management and Administration)

3. C. Tracy Harrington, Ph.D.
   Director, Teaching and Media Research Center
   Murray State University
   Murray, Kentucky, U.S.A.
   (Specialist in Vocational/Technical Education and in Non-Formal and Adult Education)

On behalf of my colleagues and myself, I would like to express our profound thanks and appreciation to the many people, too numerous to list, who gave so willingly and generously of their valuable time to assist in the preparation of this Modified Educational Sector Review.

William M. Rideout, Jr., Ph.D.

Team Leader

Professor in Policy, Planning and Administration

University of Southern California

Los Angeles, California, U.S.A.

Swaziland

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Interviews were conducted with the following persons on various dates during the month of November, 1983:

Rudolph Levy, Acting Principal of SCOT
Giles Roques, MOE Chief Inspector, Agriculture
Alan Reynolds, MOE Chief Inspector for Technical and Commercial Studies
Fr. Larry McDonald, Headmaster, Salesian High School
MOE Chief Inspector for Home Economics
Irene Allen, NCC Administrator for Practical Arts
Will Elphick, MOE Senior Coordinator, Agriculture
Ian Philip, Department of Services and Teacher Training, SCOT
Dean, Faculty of Agriculture, UNISWA
Isaac Ginindza, Principal, Emlalatini Development Center
Maher Abdalla, UNESCO Advisor, Sebenta
Elliott Ginindza, MOE Senior Inspector for Adult Education
V. M. Simelane, Director, DEMS
John Pape, Director, SAFT
Ron Summerfield, Canadian Volunteer, SAFT
Colin Sentongo, UNESCO Advisor, MOE
Isabella Katamzi, Chief Planning Office, MOE
Mary Fowler, Senior Tutor, EDC
Kieran Meeke, Production Specialist, EDC
Kenneth Magagula, Principal Personnel Office, Establishments and Training
Raymond Magagula, Acting Director NCC
Oswald Mkhabala, District Education Officer, Hhohho District
Samuel Tsakedze, Schools Agriculture Coordinator, Hhohho
Solomon Sipho Ngubeni, Headmaster, Peak Primary School
Paul Nhlengethwa, District Education Officer, Manzini
Headmistress, Boyani Primary School
Headmistress, Kwaluseni Primary School
Dr. Masotsha Joel Ziyane, Principal SIMPA
Bernard Dlamini, Principal, William Pitcher Teacher Training College
S. S. Vilikazi, Vice Principal, William Pitcher
P. G. Mngomezulu, Project Manager for In-service Training, William Pitcher
Enoch Hlophe, Headmaster, Evelyn Baring Primary School
Headmistress, Netso Primary School
Joseph Malazo, Acting District Education Officer, Shiselweni District
Peterson Dlamini, Inspector of Primary Schools, Shiselweni District
Ephness Vilakazi, Principal, Ngwane Teacher Training College
Herbert Manzini, Deputy Principal, Ngwane
John Hay, MOE Sr. Inspector, Secondary Education
H. M. Magagula, MOE Chief Inspector, Primary Education
Dr. Fanny Friedman, Director, IDM
Dr. Charles Schmidt, Dean, Faculty of Science, UNISWA

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VOLUME I

SWAZILAND:

MODIFIED ASSESSMENT OF EDUCATION

AND HUMAN RESOURCE DEVELOPMENT

Section 1

INTRODUCTION

This modified assessment of the education and human resources (EHR) sector in Swaziland is a continuation of the study completed in November, 1981, under the shared funding of AID and EEC titled, The Status and Development of Education in the Kingdom of Swaziland, Education and Training Sector Review (Ministry of Education, Department of Economic Planning and Statistics, Kingdom of Swaziland, pp. 232). The report is commonly referred to as the "Bishop Report," since George D. Bishop served as the coordinator of the team writing the study. That report, which is basically oriented toward identifying "the specific causes of wastage and inefficiency in the GOS Education System and to make priority ordered recommendations to address these problems", plus several others, as the Ministry of Education's Reports on the Review of the Third National Development Plan (July, 1983) and on the Multi-disciplinary Mission in Preparation for a Regional Program for the Elimination of Illiteracy

(organized by the UNESCO Regional Office for Education in Africa at the request of the Government of the Kingdom of Swaziland, May, 1983), have provided this study with a rich lode from which to extract in preparing this report.

Briefly stated, this study will, as requested by AID/W, be reorganized into two volumes. Volume I will now replace Chapter I which originally was to be the Executive Summary, i.e., Chapter I of what has now become Volume II of the study. Thereafter, the sections in Volume I and the chapters in Volume II will have corresponding titles and numbers, but the sections in Volume I will basically constitute a brief resume of data and recommendations which will be contained in substantially greater detail in the chapters of Volume II.

In Volume II, Chapter 2 reviews the context of Swaziland's education system -- the setting, background and status of Education and Human Resources (EHR). Chapter 3 deals with the Financing of Education and Training. It presents projections of program expansion needs and touches on quantitative, qualitative and equity questions; projections of costs for expansion needs; projections of financing program expansion and improvement costs; and feasible alternatives. Chapter 4 focuses on management/ administration in the EHR sector and is placed toward the front of the report since the team felt: (1) that this was a critical efficiency target area

within the study; and (2) that it was a central and pervasive component which had to be considered throughout the system. This chapter deals with management problems at each of the levels within the system (excluding pre-primary which has not yet been fully accepted as a government responsibility), management and administration within the system from MOE to schools, an analysis of management of school facilities and proposed alternatives. Chapter 5 reviews the pre-primary and primary systems, covering status (goals, structure and size, curriculum and materials, teaching and instruction, and proposals for future development) and analysis (plans, needs, constraints, issues and recommendations). The next two chapters, 6 and 7, review junior secondary and high school and follow basically the same format as Chapter 5 on primary education. Chapters 8 and 9 address Vocational-Technical Education and Training, and Adult and Non-Formal Education and Training, respectively. These two chapters, insofar as possible and appropriate, also follow the outline of the chapters immediately preceding. However, individual institutions and programs play a much more prominent role in these last two chapters than in those dealing with other segments of the system.

Section 2

BACKGROUND

During the period that this report was being prepared, the Fourth National Plan was also being drafted. Although no final decisions had been announced with regard to the new plan by the time the team left Swaziland, and while a new government was installed in the midst of the process of developing the new plan, it still appears useful to include in this report the major thrust and objectives of the new plan as outlined by the Swazi representative to the UNESCO General Conference of Ministers of Education and Culture held in Paris, 25 October to 30 November, 1983:

> "Since Independence considerable progress in the expansion and reorientation of the education system has taken place. An increase which has been rapid in both the size and complexity of the educatior system, has outstripped the Ministry of Education's capacity to plan, monitor and evaluate educational development and reform. There is need to consolidate past and present achievements and realign the education system more closely to both individual and national aspirations."

Future educational development will still be guided, as in the past, by the principle that it is the right of every child to have access to a course of basic education and by the recognition that education has a crucial part to play in a country's social, cultural and economic development. Thus, social demand for education will continue to be the guiding principle for provision at the primary level of the education system. The emphasis in

educational development policy will shift away from rapid quantitative expansion of the formal education system towards the consolidation of what has already been achieved. Further reorientation of the education system and provision of alternative education opportunities are planned.

The intent is to improve the quality and relevance of education at all levels of improving and expanding teacher training programs, curriculum development, strengthening the Ministry's administrative, professional and support service and the systematic planning, monitoring and evaluation of educational development and reform.

The objectives will be:

a. to consolidate the achievements made towards the quantitative and qualitative improvements of the education system, in particular, training of teachers for all levels. At the primary level to reduce the number of unqualified teachers which presently constitutes about 12% of the teaching force. The provision of broad alternative educational opportunities at the secondary level will further increase the demand for qualified teachers and instructors;

b. to continue with the implementation of Universal Primary Education. This will eventually result in the establishment of a ten-year basic education. Measures will be taken to reduce the number of repeaters and out-of-age pupils;

c. (i) entry to senior secondary education, the University and to all other courses of higher learning and training to be according to the ability of the student;

(ii) development of secondary and higher education will be controlled by the availability of financial and physical resources and by the employment prospects of the country;

d. to provide alternative educational opportunities through the establishment of a variety of pre-vocational and vocational programs;

e. to expand and improve teacher training programs through the more effective use of existing facilities; no expansion in primary school teachers' college is recommended. However, upgrading programs for the training of teachers for primary schools is recommended.

f. to strengthen and reorganize the Ministry both at headquarters and in the districts; it is intended to strengthen both the administrative and professional divisions of the Ministry. There is a particular need for the establishment of a fully-operational research, evaluation and planning section within the Ministry to complement and support the central planning agency. There is also a need for the establishment of a Ministry of Education educational facilities unit to coordinate the preparation, implementation and evaluation of the annual school building program."

It should be pointed out that with the knowledge and concurrence of officials in the MOE, these proposed GOS strategy guidelines for the forthcoming educational sector of the new national plan have influenced the direction and emphasis of this study. If there are revisions made in the strategy and objectives of the national plan so that the proposals presented above at the UNESCO meeting in Paris are significantly changed, then such modifications should be taken into consideration by MOE and AID insofar as they might relate to priorities and recommendations made herein.

Section 3

ACCESS, EQUITY AND EFFICIENCY

INTRODUCTION

The first part of this chapter summarizes recent trends and the current status of Swaziland's primary and secondary school systems. Discussion is focused on the issues of access, equity and internal and external efficiency of the schools. The concluding section sets forth prioritized recommendations designed to alleviate problems which have prevented the achievement of national education objectives.

PRIMARY EDUCATION

The dominant characteristic of Swaziland's primary school system since at least 1970 has been enrollment growth. The expansion of the system was consistent with the government's objective of achieving universal primary education. Between 1970 and 1983, enrollment grew at a five percent average annually compounded rate. Inputs in the form of teachers and classrooms (since 1977) increased more than proportionately resulting in an 18 percent decline in the student-teacher ratio and a three percent improvement in the student-to-classroom ratio. On balance, the expansion of the primary system has significantly improved the population's access to basic schooling opportunities. Previously existing problems of limited access

for females (a minor problem) have been rectified and progress has been made in enhancing access for relatively more rural residents. However, a continuing equity issue is that of funding. The available evidence suggests that school fees place a burden on low income groups and, at least to some extent, limit their participation in the primary schools and consequently their advancement through education.

The major problem of the primary system is associated with internal efficiency and, to some extent, external efficiency. The system is characterized by high rates of repetition and drop-out. The implication is that the system is utilizing its resources in an inefficient manner, having to provide more student seats and the associated teaching inputs than required by a system having a higher through-put.

The repetition rate across the seven primary grades was 13.4 percent in 1983, the rate having increased in each year since 1980 and in comparison to the average rate for the period 1977-1979. The drop-out rate averaged 7.6 percent in 1983, approximately the same as it was in 1980. An analysis of student through-put of the primary system based on 1982 grade to grade progression rates suggests that for every 1000 students who entered the system, only about 183 would complete the seven successfully in seven years and proceed to secondary schools. A total of 373 students are

predicted eventually to complete the seven years and enter secondary school; but it would require a total of 5,721 student seat years to achieve 373 graduates, or an average of 15.3 years to graduate each student. For every continuing child who graduates from primary school based upon the experience in 1982, the primary school system has provided a total of 15.3 years of schooling for all the children who enrolled regardless of whether they did or did not complete the primary system. In other words, many children have repeated grades as well as some having dropped out and re-entered the system. The reasons for obtaining these results concerning the national primary system graduation probability are numerous and complex. The reasons undoubtly involve social and economic forces causing some children to have insufficient funding for school fees. Health problems could lead to poor performance or necessitate that students drop-out temporarily.

It is also reasonable to believe that part of the explanation for the probability result is due to the enrollment expansion and the accompanying improvement in access. This argument is most appropriately made with reference to the expansion of educational opportunities into rural areas where students might be less well prepared for formal education thus necesstating a higher than expected amount of repetition especially at the lower grades. However, this explanation fails to account for repetition rates being relatively constant across grades for any given year. More important is that the repetition rate has accelerated in recent years, thus failing to coincide

with the years of the most rapid expansion into rural parts of the country.

As a reflection of the expansion and high repetition rate the primary system has a large and increasing proportion of out-of-age students, both under-age (less than six years) and over-age (age thirteen or older). Evidence suggests that the repetition rate for under-age children is approximately 30 percent. For example, in 1982, 2527 children under 6 years of age were reported as being enrolled in grade 1. In 1983, 744 students who were reported as being either under 6 or at 6 years of age in 1983 (and thus categorized as less than 6 years in 1982) were classified as repeating grade 1. These figures imply a repetition rate of approximately 30 percent, a figure well in excess of the primary school average. The over-age children repeat at approximately the same rate as correct age students, but their drop-out rate is significantly greater than that of the correct age students. One measure of over-age students is the number of primary students enrolled who are older than 12 years. Of the 25852 students in 1982 who were 13 years or older, the 1983 register reported only 16751 individuals who were 14 years or older. Some of the students had graduated but the potential number of graduates at this age level cannot account for the sizeable difference. The vast majority of these over-age students must have dropped out of the system.

It is apparent that the out-of-age group of students are a major factor

preventing the system from achieving internal efficiency. Children who enter the system when they are less than six years of age frequently repeat at least one grade in Swaziland's primary system. The data also suggest that older than correct age students occupy seats for a period of time but eventually drop-out without completing the full program due to a variety of reasons.

Given the current allocation of resources, the primary school system has in some sense achieved the goal of universal primary education if the goal is interpreted as providing a primary school seat for each child in the population between the ages of six and twelve. In fact, the system does not enroll all such children in part due to the presence of out-of-age children. Other factors contributing to the system's inability to enroll all correct age students is the remaining lack of access for children living in certain rural areas and the continuing high fees the schools require.

A major issue confronting Swaziland's educational planners is that of the supply of teachers and teacher training facilities. Projections of teacher demand and supply suggest that reasonable policy initiatives which are designed to correct the irrationalization of the primary student age structure would currently provide a surplus of qualified teachers given the present training facilities. Even accommodation of out-of-age children at the present rates might yield a surplus of teachers by the end of the

decade.

SECONDARY EDUCATION

Enrollment growth and improvement in indicators of access have also characterized the secondary school system. Between 1970 and 1983 enrollments in Forms I, II and III increased at an annually compounded rate of 8.9 percent. Enrollments in the higher forms have grown at a 16.4 percent rate. However, since 1979 enrollment growth at each level has slowed, to 5.2 and 8.7 percent, respectively. The growth in teaching inputs has been more than adequate to achieve objectives for secondary education as specified in the Third National Development Plan. The plan called for 22,500 school spaces, a teaching staff of 1,150 and ratios of students to qualified teachers of 25 to 1 and 35 students per teaching room. In 1983, 27,801 students were enrolled and were being taught by 1,518 teachers, 1,281 of whom were qualified. Ratios of 21.7 students per qualified teacher and 27.1 students per teaching room had been achieved.

The expansion of secondary school spaces has been more than adequate for the numbers of qualified students as determined by those passing either the Primary Certificate Examination or Junior Certificate Examination. In fact, places in the senior secondary forms are sufficient to accommodate students with either first, second or third class passes in the J.C.,

whereas educational policy was originally intended to provide seats for individuals with first and second class passes only.

Male and female enrollments are virtually identical at the Junior Secondary level whereas males have an advantage in the Senior Secondary forms. Males accounting for about 55 percent of total enrollment in Form IV or V (and, in the few cases where relevant, Form VI) in 1983, down from about 57 percent in 1979. Due to the existence of boarding schools, (8 boarding schools out of a total of 89 secondary schools), a straightforward comparison of an urban-rural disparity in facilities relative to population is not possible. However, school fees are an issue since they are higher than for the primary grades and thus probably serve as an important deterrent for children of lower income families. Obviously, costs of boarding children exacerbates the financial burden for poor rural residents who are not situated close to a secondary school.

As with the primary system, the lack of internal efficiency is a major problem for the secondary system. Repetition rates are lower but the pass rate for the Junior Certificate Examination is lower than the pass rate for the Primary Certificate Examination. In addition, the drop-out rate for secondary schools excluding Forms III and V exceeds that for the primary grades. Based on 1983 repetition, drop-out and pass rates, for every 1000 students who enter Form I, 193 will graduate with a first or second class

pass in the Junior Certificate Examination but 2,897 student years or an average of 15 years per graduate will be required to obtain the throughput. A similar analysis for the senior secondary forms indicates that 1,904 student years would be required to produce 269 graduates, an average of about seven years per graduate. Moreover, it appears that the throughput rates have declined in recent years based on a comparison of the results presented here with those found in the Bishop Sector Review. The rates reflect not only conditions under the control of the secondary schools, but also general economic and social factors influencing the dropout and repetition rates.

Alternative projections of teacher supply and demand consistently yield the result of a surplus emerging by at least the mid-1980s as long as student enrollments fall within a range of four to six percent. All of the available evidence suggests that especially at the senior secondary level, Swaziland currently has a sufficient total number of qualified teachers and that a major efficiency issue is whether they are being utilized to their full potential in the classroom. However, within the total, there do exist shortages of qualified teachers for certain subject areas. Thus, staffing plans for the system should include an assessment of qualifications of teachers by subject areas and anticipated enrollments by subject area.

EXTERNAL AND INTERNAL EFFICIENCY

The achievement of external efficiency also appears to present the primary and secondary school systems with major problems. Prevailing general economic conditions have not been conducive to the generation of sufficient employment opportunities for the unskilled. Nor are conditions likely to improve to the point where school leavers and drop-outs from the primary system could expect employment in the formal sector. However, employment for graduates of the secondary system appears to be plentiful and relatively well paid, thus providing a strong inducement to demand for school spaces and the corresponding required expansion of the educational system.

The combination of the serious internal inefficiency in the system and limited employment opportunities for unskilled school leavers presents a dilemma for educational planners. Pressures exist for expansion of the system so that each child will have the opportunity of receiving the necessary educational qualifications to obtain the relatively well paid jobs. But, the lack of internal efficiency means that relatively few of the students will in fact obtain the required qualifications. Instead, a high proportion will drop-out and face very limited prospects for employment in the formal sector.

SUMMARY

Expansion of educational opportunities at both primary and secondary levels has undoubtedly contributed to a decline in educational quality. However, the diminishing quality appears to have accelerated in recent years despite a slowdown in the rate of expansion in enrollments. Policies designed to influence the number of students enrolled have a potentially direct impact on quality. Given current resources allocated to primary schools, the system could achieve the goal of Universal Primary Education. The major problem of the primary system identified in this section and which prevents attainment of U.P.E. is in the area of out-of-age enrollments.

The following recommendations for the Primary system are designed to eliminate the inefficiencies associated with the category of out-of-age children. Other recommendations which address the issues of quality as influenced by enrollments in addition to other variables are discussed in the section of the report dealing with management.

RECOMMENDATIONS

Under-age Children in Primary Schools

Children under the age of six years should not be permitted to enroll in the primary system. In practice, children who will not be six years of age by a given month of the school year, October or November 1, for example, should have their enrollment postponed to the subsequent year. Proof-of-age, either as issued by civil authorities or by official testimonial, should be required when registering a child for school.

Over-age Children in Primary Schools

1. No child should be allowed to repeat a primary grade more than once during his or her primary school tenure - - one repetition would constitute the total permitted per child in the primary system. This policy could be gradually implemented over a period of years.

2. A limit should be established for each school's aggregate repetition rate. The rate could vary from school to school subject to the basic criterion of the

demand for school spaces from among the population within a catchment area relative to the number of available spaces in the existing schools. Correct-age children should have an opportunity to enroll in school so as potentially to demonstrate their aptitude rather than have that space allocated to children who are repeating grades.

An aggregate rate for repetition of approximately seven percent is recommended as being consistent with existing educational resources and the objective of Universal Primary Education.

Primary Teacher Training Requirements

Based on the analysis of data, it is recommended that no additional teacher training institutions be constructed since within the near future existing facilities will satisfy national needs.

Secondary School Expansion

1. The rate of expansion in the number of school seats at both the junior and senior secondary levels should be

based on relevant employment opportunities. Given that employment opportunities in the formal sector are not likely to exceed four percent, this rate should be viewed as the upper limit to the rate of growth of junior and senior secondary school capacity.

2. Within the limit of four percent, acceptance of students into Forms I and IV respectively should be based on demonstrated standards of achievement on examinations.

3. Opportunities for female students at the senior secondary level should continue to be emphasized in order to establish the same degree of gender equity as exists at the primary and junior secondary levels. Special incentives may need to be developed such as scholarships in order to counteract social forces that may have led to the gender inequity. The trend in recent years has been toward reducing the gap between genders and this should be perpetuated.

Section 4

MANAGEMENT

The tremendous expansion in the provision of educational opportunity since independence is laudatory. However, this expansion in accessibility has not been matched by a corollary increase in management capacity. The internal inefficiencies that have manifested themselves are recognized by the Government of Swaziland. It is further recognized that it is imperative that current management systems be upgraded to ensure the most efficient use of available human and fiscal resources.

Current economic reality requires that resources be made available through improved management rather than by merely adding to the current budget.

The goal of management reform is to gain administrative control of the education system from the central headquarters unit, down through the Regional Offices to impact on the improved delivery of education at the building level. In undertaking to improve the management system key objectives should (1) improve the clarity of staff roles and responsibilities, (2) provide the opportunity for professional skill upgrading, (3) improve the policy planning and implementation process, and (4) provide mechanisms

for the clear communication of stated rules, regulations and policies.

In addition to the general question of reorganization of the Ministry of Education addressed in Volume II, Chapter 4, a number of specific areas of system management requires in-depth focus.

DATA COLLECTION AND ANALYSIS

At the Headquarters Unit the area of policy planning and analysis needs additional support and upgrading if it is to provide a well-founded data base input to policy planning activities. The establishment of on-going data collection and analysis efforts are vital to the task of providing a sound basis for management actions.

REFORM OF THE INSPECTORATE

This does not necessarily mean expansion or 'more of the same'. Many of the problems confronting the improved management of the inspectorate lie structurally in the organization of the system, i.e., the bifurcation of elementary and secondary school inspectorates, and the tension between Regional and Central Office roles, responsibilities, and job descriptions.

Though improved management of existing resources and the reform of inspectorate roles as described in Volume II, Chapter 4, the inspectorate could function as both a substantive leader and management oversight arm of

the educational system. The upgrading of Regional Offices allied with a modification in current inspectorate roles would provide the vehicle for direct management and data gathering from the Regional Office with the senior inspectorate being required to assume the role of extensive subject matter leadership.

MANAGING THE SCHOOLS

At the school level, the requirement exists to upgrade the skills of school principals through improved pre- and in-service training. Skills requiring attention include: management of personnel allocations, fiscal management, and academic leadership. Areas of school management requiring specific focus include: teacher absenteeism, time wastage, teaching loads and the upgrading of curriculum.

REGIONAL OFFICE UPGRADE

An area of management reform worthy of attention is that of modifying the role of the Regional Office in order to elevate the role to an action management level with delineated responsibilities and staffing appropriate to the heightened role. This step assumes a commitment towards a more decentralized system. It would result in placing the tasks of practical management, e.g., auditing school finances and providing fiscal oversight, closer to practice.

FINANCING EDUCATION - SCHOOL FEES

Serious attention is required to improve the management and oversight of school fee collection. This requirement recognizes the vital contribution this component makes to the support of education, i.e., at a rate of 25% of recurrent cost levels. The need exists to develop management guidelines and systems to make this component 'quasi-governmental' in terms of accountability.

A set of systematic procedures for the management and administration of school fees at the school level should be developed and implemented. To ensure the most efficient use of this valuable resource, it is vital to standardize accounting principles, policies on fund uses, procedures for material purchase, and in-place auditing guidelines.

THE BUDGET PROCESS

In order for the budget development process to become a vital planning activity and the keystone of efficient management, it is appropriate to examine the possibility of greater coordination between the current capital and recurrent budgets. Budget development can serve as the vehicle for systematic planning with the process providing the opportunity for reconsideration of past activities and prioritizing among future needs. Budget

development should be undertaken in a realistic atmosphere and developed in conjunction with all the primary actors within the Ministry of Education and from the other primary governmental agencies. The result should be a process based on clear decision rules and sound data.

Policy and Administrative Guidelines

As discussed extensively in Volume II, Chapter 4, the systematic development and implementation of policy guidelines and procedures are vital to the efficient management of the education system. Examples of areas in need of attention are those addressed in Volume II, Chapter 3, i.e., the issue of under- and over-age children attending school. Establishment of policy and enforcement of administrative procedures is needed in this area. Successful implementation of such policy would result in extensive fiscal savings for the system.

RECOMMENDATIONS

The following are illustrative of the type and phasing of steps to upgrade the management of the education system in Swaziland. They use as their departure point previous commitments and actions by the Government of Swaziland. They specifically represent the type of support which AID as a donor agency is qualified to provide, i.e., management analysis and manage-

ment skill upgrading.

Recommendation 1: Analysis of the Structure of the Ministry of Education

To deal with the general question of organizational efficiency, a system-wide study of the roles and responsibilities of individuals and sub-units should be undertaken to include:

a. Examination of the most efficient use of current staff and sub-units.

b. Examination of the most efficient need for and use of, new staff and sub-units.

c. Specific definition and development of protocols and procedures for staff and units with the necessary interface at the Headquarters level, District Education Office, and School Building Level:

e.g., Headquarters Unit,

- role of the planning unit,
- current Inspectorate,
- Teacher Service Commission,
- National Curriculum Center,
- regulations and procedures;

DEO,

- management role of DEO,
- inspectorate at district level, audit, workshops, management, data gathering,
- relationships to schools;

Schools,

- management needs,
- teacher support,
- classroom/school management.

d. Evolving from the previous steps should be the clear delineation of the specific needs and types of further project interventions required to ensure appropriate in-service and management training to support the organizational restructuring.

e. A major outcome of this proposed activity would be recommendations and agreement upon steps for the realignment of roles and responsibilities between the Headquarters Unit, the D.E.O.s and school headmasters. The issue of decentralization of administrative responsibilities would be a central outcome of this initial study activity. The question of the roles of the Regional and Headquarters Unit Inspectorate (addressed in depth in Volume II,

Chapter 4), would be conceptually resolved and the groundwork laid for the implementation of steps to assure improved management of the system.

Achievement of the preceding recommendations might be assisted by designing a project approximately 18 months in duration which would provide 1 to 3 OPEX (operating personnel) staff, plus short-term consultants as needed and a modest operating budget. The OPEX team would work intimately with the Senior Ministry Staff, and with Senior Staff of the Department of Establishments and Training, to help assure that recommendations have a strong probability of being expeditiously enacted, the project's scope of work should specify that all recommendations be implemented, i.e., fully operating prior to the project's termination.

Recommendation 2: Design and Implementation of Management Support Activities

The task would be to provide technical support and management training to selected individuals and system sub-units to ensure implementation of organization restructuring, for example:

a. To develop skills for writing regulations, rules and personnel procedures and for implementing them;

b. To provide technical support for the design and implementation of a Management Information System;

c. To train District Education Office Staff in emerging support, supervisory, data gathering roles;

d. To train school level staff in management techniques, i.e., accounting, classroom management, technical support;

e. To assure the integration of project selection, design and implementation, thus maximizing impact.

Under recommendation 2 final decisions on project form and direction would evolve from efforts undertaken under recommendation 1. A variety of delivery options should be examined for possible use. One strategy would be to develop projects aimed at upgrading skills across the system over a prescribed timeline, e.g., a pre-determined number of District Offices or schools would be addressed per year. Another approach with the same ultimate goal might involve selecting a set of schools across the four districts and in a segmented approach demonstrate techniques in these schools which would serve as "Centers of Excellence".

The two approaches are not mutually exclusive. The advantage of the second strategy is that it can rapidly profile success and provide evidence

of potential achievement for other segments of the system to use as a model. In final form, however, both type and approach to project intervention will emerge from the initial efforts suggested under recommendation 1.

This recommendation could be achieved by supplementing the staffing required to accomplish recommendation 1, but essentially using the same mechanism of a small outside team working closely with Ministry of Education personnel and the staff of other government agencies involved.

Essentially, this strategy would: 1) assure institutional linkages between the two activities, 2) build upon the relationships developed by government officials and agencies during the undertaking of recommendation 1, 3) continue to assure that major input and leadership emanate from the Ministry of Education, and 4) promote close working relationships among personnel involved in accomplishing both recommendations by having them work together within the construct of a training vehicle, to be chosen or developed by government personnel, during the time the activities specified in both recommendations are being undertaken. Ideally, this approach would provide invaluable opportunities for coordinating and/or undertaking all the training activities that would be needed to ensure the successful upgrading of management personnel involved with implementing both recommendations 1 and 2 at the levels of the Headquarters Unit, the District Education Offices, and the school.

Section 5

SUMMARY OF PRE-PRIMARY AND PRIMARY EDUCATION

THE PRE-PRIMARY SCHOOL

Originally conceived as basically oriented toward assisting rural mothers and children, the pre-primary system has shown impressive growth in the Mbabane-Manzini urbanizing corridor. While MOE officials are sympathetic to its needs and basically convinced of its contributions to Swazi society, MOE funding is not at present, nor is it anticipated that it will be during the Fourth Plan, available to assist the pre-primary school program. Nevertheless, the demand for pre-primary school is pronounced (there was a total of 174 in 1984) and is undoubtedly going to continue to expand; this expansion, even if not financially assisted by the government, could still be significantly assisted through appropriate MOE policies and regulations to shape and guide its growth.

RECOMMENDATIONS

1. Implementation of the GOS/UNICEF proposals: Late in 1982, UNICEF and GOS prepared a "Draft Plan of Operations for a Program of Cooperation for the Development of Services for Children in the Kingdom of Swaziland."

The five objectives listed are fully supported by this report as well:

(1) To develop and consolidate a definite national preschool policy, curriculum and syllabus,

(2) To strengthen the administrative and institutional framework of preschool activities,

(3) To establish a definite set of criteria in the building of pre-schools and to encourage such buildings,

(4) To develop pre-school school didactic materials designed for both pre-primary school children and their teachers,

(5) To develop a national strategy for pre-service and in-service training of existing and future pre-primary school personnel.

Implementation of these recommendations is critical for the physical health, safety and well-being of pre-school children as well as for their cognitive development.

2. Differentiating the Programs and/or Institutions Serving the Pre-School Children: Since children now include in this category range in ages from "0-6 and over," (3 schools are 0-6 and the others are 3-6) one program will not adequately serve the needs of all. Defining institutional roles for units serving different age groups within the pre-school population would provide the direction and guidance essential for defining their respective functions. For example, 0-3 might in fact be Child Care Centers

or Child Care streams; 3 and 4 might be Nursery School or Nursery School streams; and 5 and 6 (until beginning Primary School) might be Pre-primary School or Pre-primary School streams. However, if there is to be a pre-primary designation, then there must be proper articulation between students' pre-primary experiences and studies and what they subsequently will do in Primary School. The determination and designation of the functions and objectives of each of these schools or of multiple streams offered within schools, would obviously influence the roles and training of their respective teachers/staff members. As soon as these decisions have been made, appropriate guidelines should be prepared for the administrators, inspectors, teachers, parents, and NGO support groups.

3. Empowerment of the National Preschool Committee: This group should have the power and responsibility actively to assist GOS/MOE, Non-Governmental Organizations (NGOs) and interested donors, to promote the most advantageous programs possible for Swazi children.

4. Teacher/Staff Training for Proschool Institutions: Once institutional functions are defined (see recommendation 2), criteria and qualifications for teachers and staff members in these various centers/schools should be specified, and appropriate certification and licensing processes and training programs prepared.

5. Impact of Pre-Primary Education on Primary: Research should be supported to determine the influence of the pre-primary experience on children in terms of their socialization, their academic attitudes, and the impact, if any, pre-primary has on the subsequent development of literacy and numeracy in primary school in both urban and rural environments. The linkages between pre-primary and primary should be clearly specified and evaluated.

6. Expansion of the Pre-Primary Inspectorate Capability: The approach which MOE has recently devised to afford greater coverage of the pre-primary system by the national inspectorate is commendable and should be fully implemented quickly. While there is only one Preschool Coordinator responsible for the entire pre-primary system who reports directly to the Primary School Inspectorate, it has now been proposed that this Coordinator have one Teacher Leader in each region to assist with the duties of the inspectorate. At the time this report was written, only the Teacher Leader in Hhohho had been appointed; the other positions remained unfilled. This plan has merit and promise; one year after it has been fully staffed, it should be evaluated and modified, if required, in order to make it of maximum effectiveness. Without an expansion of the number of qualified personnel to assist the Primary School Inspectorate in overseeing the Pre-Primary (or Preschool) component of MOE's domain, it will be absolutely

impossible for this function to be even marginally accomplished.

THE PRIMARY SCHOOL

Universal Primary Education (UPE) by 1985 has been stated as Swaziland's major developmental objective. It should be noted that if the government refused to tolerate out-of-age students in the system and numerous repetitions, Swaziland would have adequate places in its system to achieve UPE almost immediately (see Chapter 3). Other major goals of the Fourth Plan appear to be: to complete the introduction and dissemination of primary curricula materials and thereby assist in standardizing the use of new syllabi, to improve the quality of education and to introduce practical arts throughout the system. In achieving these goals, the government will place special emphasis on: maintaining the pupil:teacher ratio of 35:1; implementing the new primary curricula which have fallen behind schedule; establishing an in-service training program in conjunction with teacher training institutions; and providing equal access to achieve UPE for children from age 6 to 12.

TO STRENGTHEN INTERNAL EFFICIENCY:

1. To Improve English and siSwati Language Capability: (This is also noted in Chapter 6 for Junior Secondary.) The practice at present is to

concentrate on siSwati during the first three years and on English thereafter. What appears to happen is that students become orally proficient in siSwati, but not fully literate since the emphasis turns to English after the third standard. In English it seems that only exceptional students become fully proficient in written and oral forms of the language, while the majority continue throughout their secondary school (and even into university) to have trouble writing English with proficiency and many remain reluctant to speak it. This language blockage has, according to teachers at all levels, a profound impact on students' academic performance. The English language competency research project recommended in Chapter 6 should help to overcome this.

2. Shortages of Academic Materials: Complaints about shortages of materials, equipment, books and classroom supplies are a constant refrain nationwide. The fact that some 99% of the primary school budget goes to pay salaries makes this shortage of school materials an endemic problem which is not presently being adequately addressed.

3. Shortages of Fully Qualified Maths/Science/Technical Teachers: This topic is covered in Chapter 6.

4. Violations of the 190-Day School Year Requirement: The variety of reasons for not having the number of student contact hours required by

law means, in effect, that students are being evaluated on the basis of a degree of educational exposure which they have not had. It has been heard repeatedly that scheduled academic programs in fact permit a loss of some 20% of total teacher-student contact hours (e.g., examination schedules and trial examinations which can interfere each term with regular classes over a period of from one to three weeks; cancellation of classes for sports activities; dismissal of classes in order to clean the school, etc.) This waste of educational resources must impact negatively on student performances. (This item is further discussed in Chapter 6.)

5. Increasing Productivity of School Administrators: Please see this item in Chapters 4 and 6.

6. Under-utilization of School Facilities: Please see this item in Chapter 6.

7. Extremely High Student Wastage: Please see Chapter 3.

TO STRENGTHEN EXTERNAL EFFICIENCY:

1. Attempt to Make What is Learned in School Relevant to Life: The proposed curricula reform should contribute to the achievement of this goal as does the expansion of the agricultural training program, including school gardens. Additional attention to subjects like nutrition, soil

erosion, sanitation and handicrafts might further contribute to increasing the relevance of school to life.

2. Utilizing the School as a Community Development Learning Center: Please see this item in Chapter 6.

3. Making Fuller Utilization of School Teachers and Administrators in Community Development: Please see this item in Chapter 6.

RECOMMENDATIONS:

1. Modification of Examination Practices: At a time when a major effort is being made to improve the quality of education, it is recommended that serious study be given to modifying the examination system so that there would be two examinations, or one examination with two parts, at the end of primary education, one confirming that the student has performed adequately to be entitled to certification that he has completed primary education successfully, and a second to determine what type of program the student should follow at the post-primary level. This second or diagnostic type of testing could be structured to fit Swaziland's range of training capabilities and facilities as well as being tailored to fit employment opportunities; it could provide MOE with a continuous national assessment.

2. Improvement of Teacher Morale: A repeated theme encountered by the Team members was that teacher morale was discouragingly low. At least three major complaints seemed to recur which related to this situation: (1) lack of teacher housing, especially in rural areas -- at present approximately one-third of teachers can be housed but, barring vigorous action to remedy the situation, that could decrease to one-fifth by 1990; (2) low salaries; it was recommended that they be increased above the level allocated annually to compensate for the rate of inflation; (3) Repayment of Scholarships. In this last area there appears to be great inequality -- those who work for the government have to repay scholarships while those who do not never repay. It would seem in the best interest of the government to institute a means of collecting scholarships from all Swazi nationals who owe it; this would correct the present inequality and might also provide additional revenue and some relief for the tight education budget.

In addition, the government might consider institution of a program of repayment forgiveness tied to the number of years a teacher teaches and scaled to provide higher rates of loan repayment forgiveness for those serving in most difficult posts. The objective would be to increase teacher satisfaction and productivity without further increases in the educational budget.

The government is also urged to consider structuring future increases in salaries and allowances/perquisites so that the isolated and difficult assignments are favored and thus making those posts more attractive. This restructured payment schedule would evolve within projected normal budgetary growth target -- it would not increase the national educational budget.

As for the housing shortage, it is recommended that serious consideration be given to exploring the possibility of supporting a combined self-help cum community participation plan for constructing the number of houses which will be required in the next decade. In addition, GOS might attempt to establish improved criteria for determining priorities for existing houses and for the building of new ones.

3. Delayed Competency in siSwati and English: Please see this item in Chapter 6 or Section 6, Recommendation 1.

4. Upgrading of Teacher Qualifications: As unqualified teachers are replaced by those who are qualified, increasing attention should be given to raising the qualifications standards of those in the system with the least training by arranging special programs to up-grade their skills as quickly as possible. There are too many teachers in the system with minimum qualifications. Furthermore, teachers of subjects like Maths/Science/

English at standards 5, 6 and 7 should have special courses in those subjects to assure that they are fully qualified to teach them. This recommendation also relates to the previous one for improving language competency, since many teachers are weak in English.

5. Upgrading Administrators: Please see Chapter 4.

6. Maintenance of School Buildings and Facilities: (See this item in Chapter 6 for background.) While Primary Schools do not have workshops and technical teachers, it is suggested that a survey be conducted to determine if it would be feasible for post-primary schools, with both workshops and qualified technical teachers, to provide assistance to neighboring schools in maintaining their buildings and facilities. With advice from technical teachers and perhaps replacement components prepared in school workshops, primary school parents might be able and willing to perform the labor required to maintain the schools. Obviously, where repairs were extensive it would be necessary to call upon government support from PWD. It might also be feasible for a trained team to visit schools periodically to perform a preventative maintenance inspection to keep potential repair problems from becoming serious. This team might come from SCOT assisted by interested donor organizations or NGOs.

Section 6

JUNIOR SECONDARY

TO STRENGTHEN INTERNAL EFFICIENCY

1. Improve English Language Capability: It is estimated that over 22% of the Junior Secondary curriculum is devoted to language training, over half of which is in English. Nevertheless, teachers and administrators repeatedly affirmed that English language capability among students is weak, which appears directly related to inadequate command of English by teachers both in written and spoken form. This is felt to contribute substantially to the excessive wastage rate at Junior Secondary schools; it is estimated in 1982 that only 18.4% of the students that enroll in Junior Secondary actually graduate with a first or second class pass in the Junior Certificate Examination. Thus, in 1982, it cost the educational system an average of 15.0 pupil/years per graduate. Moreover, this situation worsened during the decade of the 1970s (Bishop, p.79). Members of the teaching profession especially feel that a major contributor to this poor showing is lack of English. Improving the English language capabilities of teachers is essential to helping students improve their language abilities.

2. Maths/Science/Technical Teachers Manpower Survey: Poor academic performances in these areas are exacerbated by poorly qualified teachers and by unfilled teaching positions in these three areas. The programs most concerned with addressing maths/science teacher qualifications have been those at the University of Swaziland -- Science Pre-Entry Course (SPEC); Unqualified Mathematics and Science Teachers Upgrading (UMSTU); Science Teachers Upgrading (STU) -- with the cooperation of its Faculties of Science and of Education and the Chemistry Department of the Free University in Amsterdam. All three programs are directly relevant to Swaziland's need to improve its human resources capabilities in the maths/sciences area, and the STU and UMSTU programs are directly targeted on schools' needs for qualified teachers.

What needs to be determined is the extent to which these programs are assisting the school system to improve its own teaching and student output (internal efficiency) and the extent to which they also contribute to the broader needs of Swaziland's development (external efficiency). Tracer projects and evaluations now underway under the auspices of the program should help to provide answers to these questions.

3. Increasing Teacher Productivity/Utilization: Earlier studies (Duff and Hardie) as well as this one have expressed concern over low teacher productivity and utilization (see Chapters 4 and 6). In addition to the problems of teachers teaching significantly fewer hours than the minimum mandated by MOE, this study has also found that "internal absenteeism," i.e., teachers in school but not in classrooms, further diminishes seriously the actual number of student-teacher contact hours. Further compounding this problem has been a lack of rigor in maintaining teachers' records of sicknesses and other absences.

Important also, but on a much smaller scale, has been the tendency to underutilize qualified teachers in Agriculture and Home Economics.

The recommendations in Chapter 4 (also in Section 4) addresses management decentralization and modifications in the responsibilities and authority of DEOs and Headmasters/Headmistresses. It appears that matters related to control in the schools can only be handled in the schools; in other words, the school official present and responsible should also have the power and the authority required to administer effectively the school and its teachers and students. Until that

situation exists in the schools, the problems of teacher productivity cannot be solved.

In addition, once a more decentralized control system is fully operational, it could be possible for a Headmaster/Headmistress to take efficiency-promoting action -- like docking a teacher one day's pay for unauthorized or unexcused absence, without disrupting the teacher's regular pay for several months thereafter. Moreover, given the installation of decentralization to the district and school levels, more effective utilization could be made of specialized teachers, such as those in Agriculture and Home Economics, in terms of scheduling them within and between schools so as to achieve most efficient teaching schedules and loads. At the local levels minor adjustments and/or compensations could be made for transportation if that were required to achieve this greater teaching efficiency -- its cost-effectiveness could be readily determined.

4. Increasing Productivity of School Administrators: The absence of school administrators from their schools is also noted. One complaint was that administrator's have to spend too much time in school on "fetch and carry" activities; on the other hand, they also seem to spend more time teaching than their positions require so that they can cover classes for absentee teachers. Also, as noted in Chapter 4, a

study should be conducted to determine if school administrators have adequate office staff support. If it is determined to be inadequate, then steps should be taken to remedy the situation; the result should prove highly cost-effective by making administrators more productive in managing the system.

5. Under-utilization of School Facilities: The regular school day ends at 3:00 p.m. five days a week and vacation periods count for almost 25% of the year. Given this under-utilization, attention should be given either to double-shifting to avoid building new facilities or to utilizing the facilities for other (and perhaps innovative) educational purposes when facilities are not being used by the formal system.

6. Improved Maintenance of Schools and School Facilities: Even schools completed relatively recently provide evidence of poor building maintenance and inadequate care of furniture and laboratory facilities. In addition to suggestions made in recommendation 6 below, consideration should also be given to modifying school syllabi to include maintenance activities and expand the responsibility specifically to teachers and students.

7. A System for Maintaining Inventories and Stocks: Fully equipped laboratories are rendered inefficient because of lack of consumables to run experiments. Inventory procedures are inadequate and the processes for ordering new supplies apparently are not functioning. This renders even model laboratories inoperable.

8. Excessive Teacher Transfers: Interviewees noted that even Peace Corps Volunteers on a two year assignment to Junior Secondary schools were, at the end of their second year at the school, among the most senior faculty members on the teaching staff. Bishop has pointed out that at one school the average annual rate of turnover over a recent five year period was about 35%. This severely impairs the relationship between the teachers and the students and community since teachers, even though they are Swazis, are more transient than some foreigners. Reducing transfers will build continuity and, it is anticipated, promote greater integration of the teachers into the community and its development efforts.

TO STRENGTHEN EXTERNAL EFFICIENCY:

1. Ascertain What Is Learned in School and How It Can Be Utilized in the Immediate Environment: An analysis should be conducted in conjunction with NCC to determine that specific portions of the curriculum at each

grade level of the school system are directly applicable to helping the students improve their well-being. From such a study the pupils, students and government would know the functional external efficiency of the school system at each grade level along the way, and, consequently, what the students would know by grade completed if they left the system.

2. Utilize the Schools as Community Development Centers. When schools are not being fully utilized for formal education purposes, they should become available to the community as community development centers assisting the local population to improve their lives -- providing training in areas of interest to them such as health, nutrition, agricultural practices, animal husbandry, sanitation, family planning, etc. For example, in areas where RECs have not been established, school facilities could be used to provide non-formal educational programs. Thus, it would be possible to begin organizing low-cost non-formal educational activities as a transitional phase to developing additional RECs. However, in consideration of recommendations in Chapter 4, care would need to be taken to assure that the rigidity and regimentation of the on-going formal school programs would not prevail in the non-formal programs -- a major problem presently inhibiting the growth of RECs.

Consideration might also be given to using schools after hours as distance education centers in conjunction with an expanded provision of programs for formal certification through Emlalatini. This would fit well with recommendations in Chapter 9 for expanded access to distance education programs.

3. Making Fuller Utilization of School Teachers and Administrators: Efforts should be made to assist school personnel to remain in, live in, and work in the communities in which their schools are located. There is a surprising degree of commuting done by school personnel which means that they are in the schools' communities only during working hours. Where this occurs, teachers are unavailable to assist as resources for other community development efforts. (This relates to recommendation 8 under Strengthening Internal Efficiency above.)

RECOMMENDATIONS:

1. Delayed Competency in Literacy in English and siSwati: A study should be conducted by grade level of the degree of mastery of siSwati and English to determine where language acquisition begins to falter in each language. Once this is diagnosed, steps should be taken to develop programs and approaches to correct the situation. It is recommended that this study, perhaps under the auspices of NCC

assisted by donor provided experts, have a representative sample taken across the student population from grades 1 through 9, so as to derive a longitudinal dimension, to determine when, where and what language learning discrepancies occur. Thereafter, appropriate curriculum materials, plus training techniques for teachers, should be developed, tested and incorporated into the system.

2. Mathematics/Science Teacher Upgrading: The programs which have been developed at UniSwa -- SPEC, UMSTU and STU -- should be carefully evaluated to determine the extent to which they are providing the kind of trained teachers that the school system requires. If they are contributing to the solution of the shortage of Mathematics/Science teachers then they should be assisted. If these projects are not addressing the schools' teacher shortages in these areas, then new approaches should be developed.

3. Productivity of Teachers and Administrators: Both in-service and pre-service programs should be developed and procedures and techniques should be devised to assist schools to assure that the performance of their teachers and administrators meets standards set by MOE. Recommendations in Chapter 4 also deal with this problem.

4. Teacher Qualifications: A thorough review should be made of teacher qualification standards. The need for unqualified teachers at all levels will soon end. Upgrading the present qualification requirements for teachers -- especially at minimum levels -- should be undertaken.

5. Administrator Qualifications: Additional training for Headmasters/ Headmistresses is essential and is covered in recommendations contained in Chapter 4.

6. Maintenance of School Buildings and Facilities: A determination should be made on the amount of self-maintenance which can actually be done by the schools themselves. It is apparent that schools with workshops and qualified vocational or technical teachers could supervise their students in satisfactorily completing a substantial portion of the school maintenance work as required as practical work. Guidelines on how this could be set up and implemented might be accomplished by a team from SCOT with initial support and input from an organization like the Peace Corps. When school repair problems exceed the capabilities of school workshops and personnel, or where such school programs and facilities are not available, then these could either be handled through normal government channels (Public Works) or consideration could be given to establishing Indefinite Quantity Con-

tracts (IQCs) with appropriate private contractors in each region so that the work when required could be done promptly. It is estimated that prompt repair and maintenance would substantially reduce ultimate costs and enhance learning conditions and environments. This is especially true in the case of keeping laboratories and toilet facilities functioning properly.

7. Improving the Efficiency of Laboratories: Science teachers are at present often inadequately trained and prepared to conduct and supervise laboratory experiments. This weakness should be corrected through science training programs and, especially for those already teaching in school laboratories, by visiting teams -- perhaps from SCOT or provided through UniSwa under the Netherlands/EDF assisted project (SPEC/UMSTU/STU). Either or both of these could be assisted by a group such as Peace Corps -- which would make frequent visits to school laboratories to demonstrate and (in the process) teach teachers: how to conduct and supervise laboratory experiments and derive maximum pedagogical use from laboratory facilities; how to control and maintain inventories of materials required for the laboratories' operations; how to make maximum use of local materials and environments in conducting laboratory work, and how to promote science learning through greater utilization of the laboratories. Once the

present corps of laboratory science teachers has received such training, the team visits could be less frequent and when scheduled could be more innovatively oriented.

The Team was advised that the Science Education Center had prepared a checklist which might be used, and perhaps expanded if need be, as a basis for determining items and quantities recommended for various types of school laboratories depending upon enrollments and grade levels served. Furthermore, since inadequate ministerial funding is often blamed for shortages of laboratory equipment and materials, it is suggested, pursuant to recommendations in Chapter 4, that appropriate proportions of local school fees be automatically allocated to support laboratories and workshops.

8. Analysis and Modification of the JC Examination: Similar to the recommendation made in Chapter 5 with regard to the Primary Certificate examination, although perhaps less urgent, would be a review of the JC to determine if it provides adequate guidance for determining whether examinees should continue with academic training, be recommended for non-academic training, or receive other kinds of counseling. Career development advice would also be influenced by projected job market employment opportunities (see Chapter 3). If the

present JC examination does not provide this range of information with which to assist students in their future training/education/occupation decisions and options, then serious consideration should be given to modifying the examination and/or undertaking additional tests to supply the data required for such counseling. It is recommended, as it was for the PC, that the JC examination (or examinations) should serve not only as an attestation of satisfactory completion of Junior Secondary, but that it should also determine what future training the examinee should take and that such advice should take into consideration future employment opportunities in Swaziland.

9. Teacher Morale: If teacher morale were improved, transfers should drop and teachers might be more willing to participate in community development activities. Factors bearing on this include housing, salaries and scholarship repayments, all of which have already been discussed and which must be addressed, plus the establishment of a solid policy on teacher assignment and preference (see 10 below).

10. Teacher Assignment Preference: There is a serious need to establish and enforce assignment criteria. It is recommended that such criteria be drafted by a ministerial committee including teachers, administrators and inspectors, which would determine how assignments were to be made, when transfers would occur, and how preferences would be deter-

mined. Thus, for example, a teacher accepting a difficult posting for a specified number of years would know that when that assignment was completed, his or her subsequent preferred posting would be guaranteed.

11. Improved School Facilities Utilization: There is considerable resistance on the part of school administrators and teachers to using school facilities for purposes other than those traditionally performed in schools. The assumption is that if school facilities were used for purposes other than teaching the normal clientele of children, the schools would be left dirty and disrupted, materials would be used up or would disappear, wear and tear on the school buildings and equipment would reduce longevity and serviceability, etc. However, such outcomes need not be a consequence of expanded utilization of school facilities to improve the development and well-being of the entire community -- not just the children -- although during the normal school days schools would continue to be engaged uniquely in educating children.

If the broader community utilizes the schools and feels that the schools are an integral part of the community's life, rather than being the "insular institutions" described by many African scholars,

it could well be that the buildings would, as a result of community use, be cleaner and better maintained; that they would be better equipped and that increased community involvement would in fact increase their projected years of service and productivity. If community participation in school-based activities were channeled through a viable local institution like the Parent Teacher Association or a local traditional administrative structure, then the group would assume responsibility for making certain that conditions, agreed to as prerequisites for community use of the schools, would be met. Given the generous support which Swazi parents already give to school budgets through school fees, there is every reason to believe that they would take care of school property and even increase their commitments to schools which become learning centers for the community rather than just for the children.

12. Assessment of the Practical Utility of School Curricula: As was noted in the Strengthening of External Efficiency portion of this section, an analysis of basic needs (or area of "need to know") should be determined at the government level, perhaps a suitable task for the NCC, and then the curricula should be reviewed to determine where these elements now occur or should be included in the school curricula. Once this has been done, it will be possible to determine by

grade level completed the extent to which Swazi school graduates (or drop-outs) are qualified to participate in economic, social and/or political activities. This information would be useful for non-formal education programs, including the REC activities; for manpower analyses for occupational training programs; for industrialization projects; and for a range of other development-related activities.

Section 7

SENIOR SECONDARY

A Senior Secondary education program culminating with the COSC is highly sought after by students and their parents. The nationally stated policy is that upper secondary program growth should be limited by student abilities and employment opportunities. This policy has not been strictly followed. The subsequent rapid expansion of the Senior Secondary program has major policy implications for the course of education in Swaziland.

The most pressing of these implications is budgetary. The impact on the recurrent budget, should current growth be maintained, will be major. It is presently estimated that the cost to maintain a student place at the Senior Secondary level is approximately five times as great as required to maintain a place at the Primary grade level. This projection merely assures maintenance of the current delivery systems. It does not provide

funds for upgrading selective program components, i.e., administrative skill training; curriculum improvement; improved materials, etc.

It must be expected that rising expectations will draw increasing pressure for program expansion.

RECOMMENDATIONS

1. Rate of Expansion: In the light of this demand the following question must be addressed; how rapidly should the Senior Secondary division be allowed to expand, under what conditions and in what form? Available demographic data allow for an accurate projection of demand to be made. Existing data further provide the opportunity for a clear examination of system efficiency against currently stated goals. These studies with the projected implications for national policy need to be undertaken.

2. Matching Expectations to Economic Reality: As the number of students in Senior Secondary programs continues to increase provisions need to be made for a general lowering of student expectations in terms of the economic return of the educational investment. The extremely positive rates of return traditionally associated with completion of this phase of education cannot be maintained in light of student expansion and

economic reality. One timely solution should be to re-evaluate current structure of Senior Secondary education, both their program content (i.e., curriculum) and their measure of attainment, specifically the existing examination framework.

3. Broadening the Curriculum: It is suggested that the current moves to broaden curriculum content be continued and accelerated. This does not suggest that for all students the current curriculum should be changed but merely that for many it should be broadened to encompass additional practical, technical and vocational training opportunities. To support this move, consideration should be given to the provision of additional curriculum materials support and to the required training of teaching personnel in areas of emerging need, i.e., electronics.

4. Alternate Examinations Needs: In tandem with program expansion must be a move to examine and address systematically the question of the current examination structure of the Senior Secondary level. It is evident from available data on student pass rates that a problem exists. It is perhaps appropriate at this juncture to examine the suitability of the current examination framework for all students and to push for further expansion of alternate measures of program completion.

5. Upgrading School Administrator Skills: Central to any success in schooling is the quality of the building administration. Rapid expansion of the system has placed tremendous pressure on the management of schools.

Additional training and management upgrading for administrators is crucial to any improvement in the conduct of the education process. It is therefore suggested that administrator training via sabbaticals (leaves for training) or in-service programs be given immediate attention. It is further recommended that this training be systematic and balanced, not merely the by-product of an idosyncratic year on a foreign campus. Consequently, it is recommended that a program combining in-service and short intensive courses within country be constructed to assure both quality control and systematic delivery of program content.

Section 8

VOCATIONAL-TECHNICAL EDUCATION AND TRAINING

PROGRAMS

The general growth in educational provision since independence has been paralleled by significant expansion in practical, vocational, and technical programs. The main elements in this expansion have been the continued growth of the Swaziland College of Technology and the introduction of practical, prevocational, and technical components in the schools as part of a national policy of curriculum diversification.

THE SWAZILAND COLLEGE OF TECHNOLOGY

The Swaziland College of Technology (SCOT), the primary institution providing vocational and technical training in Swaziland, prepares craftsmen and technicians as well as technical and commercial teachers. A variety of courses is offered in an attempt to satisfy manpower needs and to supply the workers needed for the development of the country's commercial and industrial sectors. SCOT has a residential capacity for 600 students and is staffed by more than 50 instructors. Courses, scheduled on the basis of a continuous timetable, are offered through the college's eight departments: Mechanical, Electrical, and Automotive Engineering; Construction; Technical Services; Commercial Training; Hotel and Catering; and

Teacher Training. The college also operates a Junior Manager Training and Development Unit and a Trade Testing Unit. The majority of participants in the GOS Apprenticeship Scheme receive their formal training at SCOT. Until November 1983, the college was financed and administered by the Deputy Prime Minister's Office. At that time, the MOE assumed responsibility for vocational training.

PRACTICAL EDUCATION IN THE SCHOOLS

During the periods of the Second and Third National Development Plans, major emphasis was placed on strengthening the practical dimension of the school curriculum.

A schools agriculture program was initiated in 1973. In the following decade, agricultural studies or school gardens were established at all primary schools; agriculture became a compulsory subject in Form I and an option in Forms II and III. While the major focus of the program has been the junior secondary level, nine high schools have also added agriculture as a COSC examination subject; a newly adopted O Level syllabus in agriculture promises to stimulate further development of the program at the senior secondary schools.

While some skill acquisition is involved in the schools agriculture project, the aim of the program has been to instill positive attitudes toward agriculture and towards employment in the agricultural sector, rather than to train farmers. Evidence from a number of evaluative studies indicates that this aim is being accomplished.

Considerable progress has also been made in expanding practical education of a non-agricultural nature. A new practical arts curriculum including both agriculture and handicrafts is currently being infused in the primary schools. The teaching of home economics has been expanded at both the primary and secondary levels. Between 1978 and 1983, the number of primary schools offering home economics nearly doubled. Technical education, including woodwork, metalwork, and technical drawing, has been introduced at 38 Junior Secondary and High Schools, with 8 schools offering O Level training in these subjects. This expansion has taken place in conjunction with the construction of technical facilities at the schools under the Swaziland Project for Education Development (SPED). Finally, the number of schools offering commercial subjects, including typewriting, bookkeeping, and basic commerce has increased from 9 in 1973 to 36 in 1983.

Because of the growth in vocational and technical education and the proliferation of agencies involved in providing it, the government enacted in 1982 an Industrial and Vocational Training Act that mandates inter-

agency coordination and rationalization of vocational education and training. The instrument by which this coordination will take place is a National Industrial and Vocational Training Board to be activated in 1984.

PLANS

Government plans in the next five years include continued expansion of technical and commercial studies, schools agriculture, and home economics; provision of alternative educational opportunities at the high school level; the strengthening of administrative and inspection support services; establishment of guidance and counseling services at the secondary level; and development of the teacher training and curriculum development unit at SCOT. Specific targets are being developed in each of these areas for inclusion in the Fourth Development Plan.

Access to vocational training will broaden significantly when two new Vocation Training Centers and a Prevocational Training Center become operational. The VTCs, to be built in Matsapha and Siteki, will provide two-year basic vocational programs in the trades for Form III school leavers. These institutions will have the capacity to produce 80 trained students each year. Plans are to build two additional VTCs in the future so that each of the country's four regions will be served by such a Center. The

Prevocational Center, constructed at Mpaka High School and Refugee Center, was scheduled to open in January, 1984. It will provide basic general education and trade preparation in five areas to Form III leavers. The Mpaka Center will serve as a prototype for a vocational stream at the secondary level.

With generous support from a variety of donors, the GOS's emphasis on vocational training and curriculum diversification has led to major achievements in the development of facilities, the broadening of options for school children and the production of Swazi craftsmen and technicians. Continued growth in the diversification of the curriculum and in the provision of vocational training seem likely, although at a somewhat reduced rate of expansion.

NEEDS

In large part because of the growth that has taken place, there are anomalies in the system, especially in the areas of teacher supply, curriculum development, and administration and articulation that are likely to become more acute with continued expansion. Recent efforts to address the problems will need to be sustained and strengthened if both curricular diversification and vocational training are to have the intended impact.

There are three principal needs in the practical and vocational/technical area. First, a more coherent and unified approach to the continued development of practical and vocational education is necessary. There needs to be close coordination among facilities development and staffing, curriculum planning and development, and articulation of programs and activities. Second, there is a need to ensure a high level of quality in instructional programs. Finally and perhaps most important, there is a need to base further expansion on a sound appraisal of employment opportunities in the public and private sectors and in self-employment.

CONSTRAINTS

The needs described above derive from and reflect the major obstacles that impede the optimal development of diversification and vocational training programs:

1. There has been poor articulation among levels and units of the subsector, exacerbated by the administrative separation of vocational and prevocational programs and by the lack of coordination within the inspectorate of the MOE. Curriculum planning, staffing, and facilities construction have occurred independently not only between prevocational and vocational programs but within the prevocational areas controlled by the MOE so that, for example, there has been little

attempt to integrate what is being undertaken in agricultural education with technical or home economics education.

2. Largely because of inadequate articulation, shortages of teachers for practical subjects have become acute, with few steps being taken to improve teacher training in these areas. A serious shortage of home economics teachers exists, commercial teacher training is virtually non-existent, and 18 schools equipped with facilities for technical education cannot offer these programs because there are no teachers to staff them.

3. While there is a surplus of facilities for technical education, there are insufficient facilities to meet planned expansion in diversification programs, especially in home economics, alternative high school streams, and schools agriculture.

4. With the notable exception of agriculture, there has been inadequate curriculum development and materials production in diversification subjects. As a consequence there is neither a coherent progression of content nor an available supply of teaching materials in these subjects.

5. There is a lack of up-to-date manpower information on which to base plans for expansion. SCOT communicates with industry through subject

panels and so is able to offer courses that meet immediate manpower needs. But longer term projections are of crucial importance as the GOS undertakes major expansion in diversification programs and development of VTCs.

6. If GOS plans are realized, prevocational and vocational education will become a central feature of the country's educational system, with presumably many more students equipped with vocational and technical skills. The intention is for many of these newly trained Swazis to use their skills in self-employment ventures. Whether that will be possible will depend upon the resolution of contextual problems of the social structure having to do with the land tenure system, availability of risk capital for self-employment efforts, and marketing mechanisms in rural areas. Unless these problems are addressed, the promise of productive self-employment as an outcome of curriculum diversification may become a costly illusion.

RECOMMENDATIONS

These recommendations, presented in terms of internal and external efficiency, are based on the preceding analysis. Strategies for implementing each recommendation are suggested.

To Strengthen Internal Efficiency:

1. Improve administration and coordination among agencies and institutions. There is waste, inefficiency, and duplication of effort resulting from the division of responsibilities and authority for practical and vocational programs. To address this problem, the following measures are recommended:

   a. activate the Vocational Training Board as a coordinating unit as soon as possible;

   b. integrate vocational education into the MOE so that SCOT and the VTCs are under MOE authority;

   c. create a "diversification unit" in the MOE for coordinated planning of home economics, technical and commercial studies, agriculture, alternative high school streams, and vocational programs. Senior inspectors could form the working committee of such a unit.

2. Link subcomponents of diversification activities. As a result of anomalies in administration and coordination, there have been striking mis-matches between facilities construction, teacher production, and

curriculum articulation. Steps should be taken to:

a. plan diversification efforts so that staff, facilities, and curriculum will be available at the same time. Commitments in one area should not be made without parallel commitments in the others. Time schedules for construction, staffing, and materials production should coincide.

b. develop further construction of technical facilities in elementary technology only when staff and curriculum are available.

c. review and revise syllabuses in the prevocational and vocational subjects so that there is articulation and logical progression at primary, junior secondary, high school, and post secondary levels.

3. Emphasize quality of instructional programs. Curriculum development, competent teachers, and support for instructional programs are the key dimensions of the quality issue:

a. establish the proposed Technical and Commercial Teacher Training and Curriculum Development Unit at SCOT as soon as possible. Modify the existing proposal so that materials production takes place at one of the existing facilities in the country. Seek

technical assistance for staffing the unit and scholarships for training Swazis to replace expatriates at a reasonable target date.

b. seek technical assistance to fill existing teacher vacancies in home economics, elementary technology, commercial studies, and agriculture. Train Swazis to replace expatriates in these positions as soon as possible.

c. seek technical assistance for staffing the alternative streams at high schools and for scholarships for Swazi graduates so that expatriates can be replaced at a reasonable target date.

d. give priority to curriculum development in elementary technology, commercial studies, and home economics, beginning as soon as the unit at SCOT can be established.

e. coordinate curriculum development efforts with NCC, Emlalatini, and Sabenta, to develop a common system for design, development, fieldtesting, evaluation, production and infusion of new materials.

f. improve coordination, supervision, and support for commercial, technical, and home economics teachers, possibly using the

approach of the Schools Agriculture Program as a model.

g. consider a short-term program to prepare graduates in non-technical fields as high school teachers for diversification programs.

h. establish the proposed tools maintenance unit at Emlalatini.

i. implement the proposed career guidance program in secondary schools.

j. use in-country facilities for materials development and production.

To Strengthen External Efficiency:

1. Link training programs to the demand for skills. A broader and more long-term data base is needed for projecting training needs. It is recommended that the GOS:

a. conduct a comprehensive manpower study that projects needs in public and private sectors and in rural areas. Give specific attention to demand for workers in skilled trades. Verify and update manpower information on a regular basis.

b. develop VTC programs in close cooperation with local advisory committees comprised of private and public sector employers.

c. plan alternative high school streams based on data from a and b, above.

2. Strengthen articulation between training programs, employers, and in-country employment needs. A closer fit between training curriculum and job skills as well as better supervision of on-the-job training is needed. Articulation can be improved by taking actions which would:

a. establish a supervisor of industrial training at SCOT, so that students could receive systematic supervision during on-the-job training, thereby assuring that OJT experiences match training needs.

b. identify CGLI and Pitman programs containing the greatest irrelevancies for Swaziland and replace them with local or regional standards.

c. identify apprenticeship programs in which the period of apprenticeship could be reduced.

3. Address rural constraints inhibiting self-employment opportunities. Land tenure traditions, inadequate rural marketing mechanisms, and the lack of capital are problems that must be resolved if the goal of encouraging self-employment is to be realized. It is recommended that the following efforts be undertaken to address these problems:

a. establish a task force of representatives from key ministries (Education, Home Affairs, Agriculture) and from the traditional ruling system to examine the problems and recommend solutions.

b. consider a program through the RDA scheme for developing marketing infrastructures in rural areas.

c. pursue the possibility of land allocation for young farmers through the British scheme for re-purchase of freehold land.

d. seek technical assistance to develop realistic marketing schemes in rural areas.

e. seek funds to establish risk capital loans for entrepreneurial activities.

Section 9

ADULT AND NON-FORMAL EDUCATION AND TRAINING PROGRAMS

Programs of non-formal and adult education are designed to meet needs that are not being met by the formal educational system or that lie beyond the scope of the formal system to address. Such programs are typically characterized by enormous diversity in size, scope, level, clientele, and sponsorship. The non-formal sector in Swaziland exemplifies this variety, with small, wholly local efforts operating under private or religious sponsorship along side large-scale programs, under government or international sponsorship, intended to serve major segments of the population. Because the broad range of programs makes a comprehensive assessment unrealistic, the emphasis here is on programs that are of national significance, that are of at least potential importance as models, and that are under the aegis of the MOE.

In Swaziland, the major dimensions of the non-formal and adult subsectors include programs and activities in basic literacy and numeracy, the provision of alternatives for academic education for those not served by the formal system, vocational skill development for adults and out-of-

school youth, integrated rural development schemes, and opportunities for professional upgrading for Swazis in clerical, technical, or professional fields.

Although there have been definite achievements in adult and non-formal education, the educational priority during the period of the second and third national development plans has been on expansion and extension of the formal system. As a result, the potential impact of programs for adults and out-of-school youth has not been realized. Insufficient funding has meant that neither expansion of current programs nor improvements in the quality of programs have been possible.

The capacity of the formal system for sustained expansion is markedly restricted by limited resources; however, at the same time, the development goals of the government imply education and training needs that cannot be met through the formal system, and the social demand for educational opportunities continues to grow. Under these conditions, it is appropriate for non-formal and adult education to become a more central feature in Swaziland's educational planning.

The primary institutions and programs through which non-formal and adult education is being provided in Swaziland are the Emlalatini Development Center (EDC), Sabenta National Institute, Rural Education Centers

(RECs), the Division of Extramural Studies of the University (DEMS), and the School for Appropriate Farm Technology (SAFT). EDC, DEMS, and the RECs are supported solely through the MOE while Sabenta and SAFT are under joint support of private groups and the MOE.

SABENTA NATIONAL INSTITUTE

The Sabenta National Institute began in 1961 as a voluntary organization aimed at mounting a national effort to eliminate illiteracy. Basic literacy and numeracy in siSwati is provided in courses throughout the country to unschooled adults. Adult Basic English courses are also provided for adults who have attained literacy in siSwati. Sabenta produces its own teaching materials and trains literate Swazis in rural areas as instructors. Since 1972, more than 30,000 Swazis have gained literacy through Sabenta's programs. In July, 1983, 530 literacy classes were operating all over the country.

EMLALATINI DEVELOPMENT CENTER (EDC)

The Emlalatini Development Center at Ezulwini began in the 1960's as Ephesus House to provide residential secondary education for South African refugees. In 1972, with Danish aid, the Center developed a program in correspondence education. The name was changed to the Swaziland International Education Center and its programs were made available, increasingly,

to Swazi citizens. In 1978, the MOE assumed full financial responsibility for the Center and gave it its current name. Today, the three main activities of the Center are its correspondence program, with courses at both JC and COSC levels; and in-service teacher training program for primary school teachers of agriculture; and a vocational training workshop in furniture making. The correspondence courses enroll between 700 and 800 students annually. Fifteen teachers complete the agricultural teacher training program each year, while the program in furniture manufacture trains 25 students a year.

RURAL EDUCATION CENTERS

Rural Education Centers (RECs) were developed in the late 1970s to provide non-formal education and development services to adults and out-of-school youths. Eight such centers have been established. The RECs are meant to serve a coordinating function for the various non-formal education programs in the areas where they are located. The Centers provide training in rural development vocational skills, short courses and community activities on development related topics, and facilities for Sabenta literacy classes.

SCHOOL FOR APPROPRIATE FARM TECHNOLOGY (SAFT)

The School for Appropriate Farm Technology (SAFT) was established in 1978 to provide a residential training course in practical agriculture for young Swazi school leavers. It is located in the Ezulwini Valley at St. Mary's Mission, Lobamba. The school's goal is to produce small-scale farmers capable of functioning as independent producers. The current one-year program is heavily practical in orientation; students spend most of their time in practical work, supplemented by formal instruction. Since the school opened in January, 1978, more than 50 students have been through the program.

THE DIVISION OF EXTRAMURAL STUDIES, UNIVERSITY OF SWAZILAND

The University's Division of Extramural Studies (DEMS), in operation since 1974, conducts a variety of non-formal and continuing education programs. For adults and out-of-school youth pursuing the COSC, DEMS provides night school instruction in 12 O Level subjects to more than 1,000 students annually. DEMS also offers part-time certificate and diploma courses in a variety of subjects and conducts workshops, seminars, and short courses on such diverse topics as communication planning for health education, career guidance and counseling, and the use of radio in mass

education. DEMS has also been instrumental in establishing a Mature Age Entry Scheme at the University. This program, initiated in 1982, enables teachers to pursue university degrees.

OTHER NON-FORMAL AND ADULT EDUCATION ACTIVITIES AND PROGRAMS

Many agencies are involved, to varying degrees, in the provision of non-formal educational services. The Ministry of Agriculture has a number of programs serving farmers, women, and youth in the rural areas. These include extension services, training programs, and club activities related to agriculture, home economics, and leadership training. UNESCO operates a program for rural women aimed at providing participants with training in development-related domestic skills. The Ministry of Health conducts health-related programs in the rural areas, while a number of churches operate small programs in domestic science, agriculture, vocational skills, and nutrition for adults and out-of-school youth. The proliferation of non-formal and adult education activities is especially in evidence in the country's 14 Rural Development Areas (RDAs). Begun in 1970, the RDA program is one of the main instruments of the government's development plans. RDAs are subsistence farming areas targeted for a comprehensive approach to agricultural development. The project focuses on raising production and productivity by imparting knowledge about modern farming practice and by assisting in the development of supportive infrastructures.

PLANS

In its planning for the next five years, the GOS has articulated a continued commitment to non-formal and adult education as important in the country's development. The tentative priorities that have been set speak to many of the basic issues that must be resolved if the non-formal sector is to contribute meaningfully to the country's development. These include expanding as well as decentralizing the correspondence program at Emlalatini, along with upgrading physical facilities to accommodate such expansion; continued improvement in Sabenta's basic literacy program and an evaluation of the impact of the program; a comprehensive review of the Rural Education Centers to identify ways in which their efficiency can be improved, as well as the establishment of two new RECs; and the provision throughout the non-formal and adult subsector of opportunities for staff development and training.

NEEDS

There are five principal needs in adult and non-formal education. First, it seems clear that opportunities for participation in non-formal educational activities must be expanded, especially as access to the formal

system is increasingly restricted. Second, there is a striking need for improved administration, coordination and organization. The degree of autonomy that exists within the subsector has allowed an excessive amount of duplication and has created hiatuses in the system. At present, the single most salient feature of the non-formal and adult system is its lack of coherence and focus. A third need is for a clear determination of the degree to which programs match the needs of target groups, in terms of their general objectives and in terms of their structures and delivery mechanisms. Formal and explicit procedures for involving target clienteles in program development need to be established Fourth, major attention needs to be given to production of instructional materials; there is a need for more materials and for materials in a variety of formats and media. Finally, there is a need to make programs more accessible in rural areas. Currently urban and peri-urban populations enjoy a decided advantage in terms of access. Even in those areas where facilities exist to serve remote populations, the number and range of persons who have access are highly localized.

CONSTRAINTS

Barriers to meeting the needs of the non-formal and adult subsector include the following:

1. The lack of sufficient funds for staff establishments and training, for curriculum development and production. for facilities and equipment. Budgets have been consistently inadequate to meet expressed aims. This is by far the major constraint.

2. Insufficient staff and inadequately trained staff in curriculum development and evaluation, in distance education methodologies, and in rural development non-formal education.

3. The lack of articulation and liaison among agencies and institutions, resulting both in unnecessary duplication of efforts and in gaps in meeting existing needs.

4. The linking of rural education centers to secondary schools physically and administratively, with the result that non-formal programs have been overwhelmed by demands of the formal system.

5. Insufficient facilities to undertake curriculum development and to conduct adult education activities in the rural areas.

6. The contextual problems of the social structure that make it difficult for young Swazis to establish themselves as independent farmers.

RECOMMENDATIONS

These recommendations are based on the analysis summarized in this chapter and include strategies for implementation. Many of these strategies imply increases in budgetary allocations. Suggestions requiring increased expenditures may be viewed as in-consistent with the concern of this report for a major shift to fiscal restraint. It is assumed that implementation of the recommendations presented in this report will reduce wastage and increase efficiency, producing a generally more cost-effective system. Monies should thus become available, even at current levels of funding, for reallocation to under-funded components of the system. Additionally, it is important to note that in terms of return on investment, non-formal and adult educational programs tend to be more cost-effective than programs in the formal system. Adults who receive new knowledge or skills use them immediately, to become more productive; while investment in the education of children and youth is long term in nature. Moreover, non-formal programs such as distance education can achieve the same results as formal education, at lower cost. Finally, many of the strategies for improved efficiency in non-formal education involve non-recurrent expenditures that have the potential for considerably increasing the capacity of the system to cover a higher proportion of its own costs.

TO IMPROVE INTERNAL EFFICIENCY:

1. Develop a system for comprehensive, on-going evaluation of all adult and non-formal programs. Data for making decisions regarding design of new programs or revision of existing ones are largely unavailable, and there is no procedure for collecting, analyzing, or using these data on a continuing basis. It is recommended that the GOS:

   a. elicit external assistance, in conjunction with DEMS, to develop evaluation policies and procedures that address both internal and external efficiency issues;

   b. provide training through DEMS for adult education personnel in evaluation procedures and practices;

   c. institute regular assessment of instructional programs and materials;

   d. institute periodic follow-up studies of program participants.

2. Upgrade number and quality of adult education staff. Staff are too few in most institutions and underqualified in all. To address this problem, the MOE should:

a. establish posts for REC coordinators at the four RECs staffed by volunteers;

b. train all REC coordinators in adult education and community development, either at DEMS or out of the country;

c. provide bursaries so EDC subject tutors can obtain degrees in their specialties;

d. organize, through DEMS, in-service training programs in distance education techniques for EDC subject tutors;

e. fill current subject tutor vacancies at EDC;

f. establish posts for a radio tutor and a graphic designer at EDC;

g. arrange through DEMS to train EDC part-time tutors in distance tutoring techniques;

h. seek donor assistance to provide an instructional designer to train staff at EDC and Sabenta in instructional materials development.

3. Strengthen curriculum and materials development activities. There is need for more systematic curriculum development, a broader range of

offerings, a larger body of instructional materials, and more variety in the kinds of materials used. It is recommended that steps be taken to:

a. establish a common approach to instructional development and coordinate activities through NCC or the MOE;

b. provide bursaries for one or two Swazis to be trained externally in instructional design and development;

c. expand and upgrade the printing capacity at Emlalatini as the major production center for curriculum materials in non-formal and adult education;

d. construct a small sound studio at EDC for the production of radio instruction;

e. seek temporary donor assistance to revise existing courses and to expand range of courses in EDC's distance education program;

f. maintain and upgrade the small printing unit at Sabenta so that literacy materials can continue being produced there.

4. Improve administration and coordination of programs. At present, there is duplication of effort, lack of clarity regarding the rela-

tionship of the formal and non-formal system, and insufficient liaison between programs and target groups. To improve administration and coordination of programs, the MOE should:

a. develop policy statements and guidelines for the relationship between adult education units and programs under the MOE;

b. activate the adult education policy advisory board comprised of representatives from all involved agencies and institutions;

c. provide adequate staff and budget for the adult education inspectorate in the MOE;

d. separate RECs from school administration;

e. develop the RECs as focal points for non-formal and adult education in rural areas;

f. develop specific guidelines identifying the relationship between RECs and the schools with which they are associated.

g. fund the RECs at a functional level;

h. develop additional RECs only when administration, management, and funding of current ones are satisfactory;

i. activate the adult education committees at each REC as coordinating bodies;

j. conduct local need surveys and follow-up studies using the local boards of each REC.

5. Provide adequate physical resources. Adult and non-formal institutions are prevented from accomplishing their goals by the lack of adequate resources and facilities. It is recommended that the MOE:

a. seek donor assistance to construct separate facilities at the four RECs without such facilities;

b. provide each REC with a vehicle;

c. assess equipment and tool needs at EDC and the RECs, and seek donor assistance to meet these needs.

TO IMPROVE EXTERNAL EFFICIENCY:

1. Broaden access to distance education programs to serve more people and a wider distribution of people. The phasing out of DEMS' 0 Level program and reduced growth in the formal system will place new demands on the correspondence program of EDC. The MOE should:

a. maintain EDC as the center for materials design, production, and revision, as well as for distribution and coordination;

b. decentralize the tutorial system throughout the country in a series of study centers, as recommended in the Dodd Report;

c. use part-time tutors to conduct regular tutorials for correspondence students at these centers, after they have been trained in tutorial methods;

d. supplement tutorials and workbooks with radio instruction and as feasible with other audiovisual programming.

2. Address rural constraints inhibiting self-employment opportunities. Problems of land tenure, marketing, and capital must be resolved. Strategies for addressing these constraints are suggested in the preceding section on vocational-technical education. In addition to the suggestions there, the following strategies are recommended:

a. continue to fund SAFT at the current level, but do not expand it until constraints are addressed;

b. monitor SAFT and the furniture making course at EDC to determine employment realities for program participants.