A.I.D. Project Impact Evaluation Report No. 37

Radio Correspondence Education In Kenya

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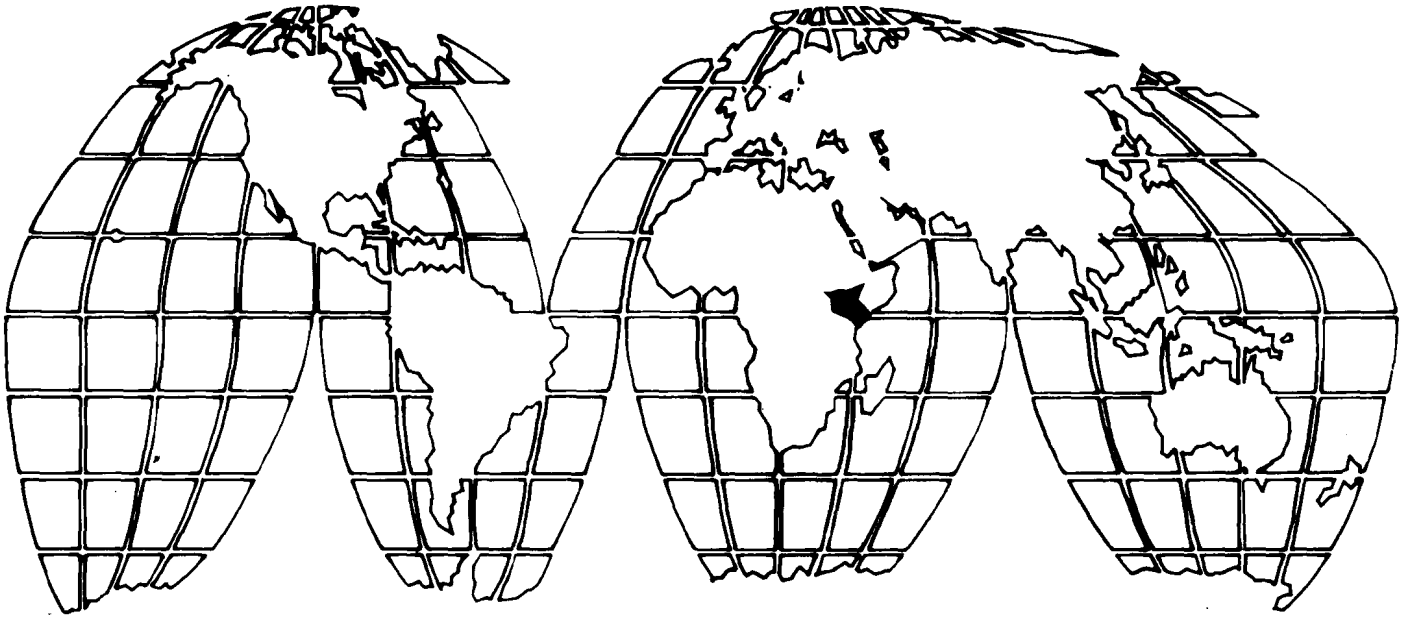

August 1982

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RADIO CORRESPONDENCE EDUCATION IN KENYA

PROJECT IMPACT EVALUATION NO. 37

by

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August 1982

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FOREWORD

In October 1979, the Administrator of the Agency for International Development (AID) initiated an Agency-wide ex-post evaluation system focusing on the impact of AID-funded projects. These impact evaluations are concentrated in particular substantive areas as determined by AID's most senior executives. The evaluations are to be performed largely by Agency personnel and result in a series of studies that, by virtue of their comparability in scope, will ensure cumulative findings of use to the Agency and the larger development community. This study, Radio Correspondence Education in Kenya, was conducted in November 1980 as part of this effort. A final evaluation report will summarize and analyze the results of all the studies in this sector, and relate them to program, policy, and design requirements.

SUMMARY

If there was a flaw in the Kenya Radio Correspondence Project, it was that it succeeded. When established with AID funding in 1967 in this East African country of 16 million, the project was designed to upgrade the qualifications of primary school teachers through correspondence courses and radio instruction. An overwhelming majority of the 12,000 teachers trained through this method passed national examinations and qualified for promotions and higher salaries. Ironically, the impact of the higher salaries upon Kenya's already substantial and rising education budget prompted the government to abandon the automatic promotion policy which had motivated many of the teachers to sign up and pay for radio correspondence instruction. Enrollments plummeted, jeopardizing the financial viability of the Kenya institution which U.S. technical assistance helped to found. Despite this serious setback, the AID on team which visited Kenya in late 1980 learned r-old project not only survived, but has been ve new and significant national educational tasks.

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It would be difficult to persuade the people of Kenya that education is not a basic human need. Their insistence on expansion of the country's educational system at all levels has had a significant impact upon the course of national development. Government expenditures for education have averaged close to a third of annual budgets since Kenya attained independence in December 1963. Access to primary education for every child is officially regarded as a fundamental right. Close to four million children benefit from that right today compared to less than a million in 1964.

At Independence, a severe shortage of trained manpower coupled with the high priority assigned to education as a result of public pressure led to both national and community programs to increase school facilities throughout the country. Expansion of the education system was inhibited, however, by the relatively small number of teachers who were not expatriates, most of whom lacked professional and academic qualifications beyond the grades at which they were teaching. The existing teacher training colleges did not possess the capacity either to improve the qualifications of in-service teachers or to supply the large numbers of new teachers required to staff the expanding number of primary and secondary schools.

Studies by both Kenyan and U.S. experts in the 1964-1966 period recommended adoption of modern educational technologies, especially radio instruction integrated with correspondence courses, as a means of supplementing the ability of the formal educational system to upgrade teacher qualifications. The

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government requested AID technical assistance, and $667,000 was granted to establish and operate a Correspondence Course Unit within the University of Nairobi's Institute of Adult Studies for an initial four years. The purpose of the project was to use correspondence courses backstopped by radio lessons and short periods of face-to-face instruction to rapidly upgrade the teaching and academic preparation of in-service primary teachers. A University of Wisconsin team of four technic#l specialists spent four years in Kenya helping counterparts write the correspondence courses and radio scripts and set up the materials production and administrative support systems. The Government of Denmark granted $243,314 for construction of the Correspondence Course Unit's physical plant and facilities about 10 miles from Nairobi in the suburban town of Kikuyu, the site of the Institute of Adult Studies.

Accepting that program development and institution building were the principal objectives of the project, the AID evaluation team judged the effort to be successful in meeting these criteria, particularly within the four-year time frame of U.S. assistance. Full course materials with accompanying radio lessons were prepared in the several subject areas which covered the curriculum up to the examination level for the first two years of secondary school. Course writers, technical specialists, and part-time tutors were trained and in place by the time the last U.S. specialist returned to Wisconsin. The University of Nairobi integrated the Correspondence Course Unit as an operational component of the Institute of Adult Studies and the Kenya Government guaranteed financial support for continuation of the project. Over 5,000 teachers were enrolled in courses during the initial four years of the project with 7,000 more following suit in subsequent years.

The Radio Correspondence Project set in place an institutional capability and methodology which permitted Kenyans to pursue education certification without the personnel or system costs of formal school attendance. The immediate impact of this achievement was to improve the qualifications of a large number of in-service teachers without diverting the limited resources of Kenya's teacher training institutions from their primary mission of producing new teachers for the country's expanding school system. The longer range consequences of the project were to hasten the change in government policy permitting the automatic promotion of teachers solely on the basis of upgraded academic achievement and to lead both government and Institute for Adult Studies administrators to identify new roles for radio correspondence education in national development programs. Among such programs, teacher "updating" and adult literacy campaigns--both of considerable political and economic significance--now appear to afford unusual opportunities to utilize the institutional capacity established through

PROJECT DATA SHEET

1. Country: Kenya

2. Project Title: Radio Correspondence Education

3. Project Number: 615-11-650-129

4. Project Implementation:

   a. First Project Agreement: fiscal year 1967
   b. Final Obligation: fiscal year 1970
   c. Final input delivery: fiscal year 1971

5. Project Completion-Final Disbursement: fiscal year 1971

6. Project Funding:

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donor--none*	
c. ..... country	1,456,000
Total:	$2,123,000

7. Mode of Implementation:

   a. Project agreement between USAID/Kenya and Ministry of Education
   b. Contract AID/afr-482 with University of Wisconsin dated April 1, 1967

8. Evaluations:

   a. Regular PAR/PES evaluations
   b. East Africa Regional Audit Office Report No. 56/69 (March 13, 1969)

9. Host Country Exchange Rates:

   a. Name of currency: Shillings
   b. Exchange rate at time of project: sh.7 = $1.00

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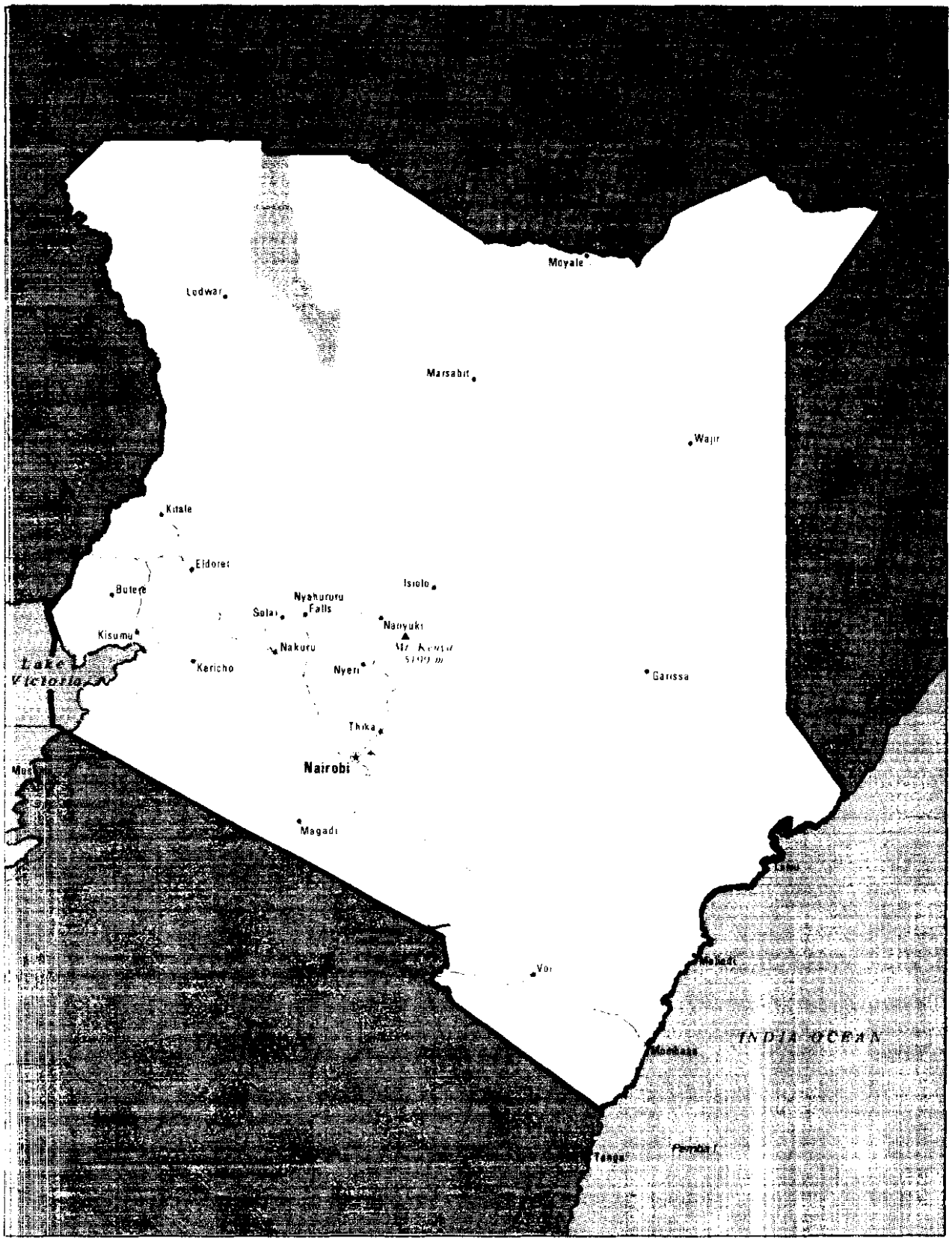
* Although outside of and subsequent to the USAID/GOK project agreement, the Government of Denmark made a significant contribution to the institutionalization of the Correspondence Course Unit (CCU) by agreeing to fund the construction of two large office blocks and six staff houses on the grounds of the Institute of Adult Studies at Kikuyu (approximately 14 kilometers outside of Nairobi). Construction began in June 1969 and the CCU was able to begin occupying space in tne new buildings in April 1970. These buildings continue to be used primarily by the staff in 1980.

ACRONYMS

CCU	--	Correspondence Course Unit
IAS	--	Institute of Adult Studies
KJSE	--	Kenya Junior Secondary Examination
EACE	--	East Africa Certificate of Education
CPE	--	Certificate of Primary Education
EAACE	--	East Africa Advanced Certificate of Education

Kenya


Moyale
Lodwar
Marsabit
Wajir
Kitale
Eldoret
Butere
Isiolo
Nyahururu
Falls
Solai
Nanyuki
Kisumu
Nakuru
Lake
Victoria
Kericho
Nyeri
Garissa
Thika
Nairobi
Magadi
Voi
Mombasa
INDIA OCEAN
Tanga

I. INTRODUCTION

Tucked away in verdant rolling hills at 7,000 feet, virtually astride the equator in Kenya's cool central highlands is the village of Kigogo.[1] Reached from the market town of Nyeri in 45 minutes via an undulating, muddy track, Kigogo is populated mostly by Kikuyu smallholders, the country's predominant ethnic group. Coffee, tea, maize, and vegetables thrive here in the rich alluvial soil.

We interviewed David Kariuki during his free period between classes at the Kigogo Primary School, a low-ceiling structure of mud walls and corrugated iron roof whose gloomy interior was offset by the strident recitations of pupils. Mr. Kariuki is an intense teacher of serious demeanor whose opinions, we were to learn, were as strong as his drive.

It had been necessary for Mr. Kariuki, now 34, to support his mother and five brothers and sisters after his father died

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ite long hours in the fields, he managed to com-
school at 15, and at 17 was hired as an unquali-
fied teacher at Kigogo Primary School. Unable, on a teacher's salary, to provide for his mother and siblings, and later his own wife and children, Mr. Kariuki moonlighted as a moonshiner. He distilled a potent, now illegal, local drink by fermenting boiled black millet, maize flour, and wheat, selling it in Sprite bottles for 12 shillings ($1.50). He relinquished his still several years ago to open a shop in Nyeri which he runs in his spare time.

Mr. Kariuki enrolled with the Correspondence Course Unit (CCU) the first year that courses were offered, signing up for English, mathematics, and geography. He found the lessons somewhat difficult, but was helped by the radio discussions of each lesson that were broadcast from Nairobi, despite transmissions that were often weak or interrupted by electrical storms. A year later he passed a qualifying exam and was automatically promoted to the lowest level of qualified teacher. Mr. Kariuki was impressed with the high quality of the correspondence lessons and their prompt correction and return by mail. He wanted to continue correspondence instruction to prepare for the Kenya Junior Secondary Examination (KJSE) which would make him eligible for immediate promotion to higher status, but he could not afford the CCU tuition. Studying privately with occasional help from a local tutor, he found the work considerably more difficult. Mr. Kariuki eventually re-

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[1]Fictional names and places have been substituted for persons and locations visited by the team.

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sumed his CCU instruction for one year. In 1974 he passed an examination roughly equivalent to four years of high school and was promoted to his present P2 status. He teaches fourth and sixth grade English and seventh grade science and geography. During this period of study, he listened to the radio lessons from 5:15 p.m. to 6 p.m. after returning from school, had supper, and then slept until 10 p.m. After correcting the lessons of his pupils, he often would work on the correspondence courses throughout the night.

Mr. Kariuki again enrolled for CCU courses in 1979 to prepare for an examination that would qualify him for further promotion. Months elapsed and he did not receive the course materials. He checked with CCU several times. Eventually, some course materials arrived, but the essential textbooks, guidelines, and many lessons are still missing. Lessons submitted in May had not been returned by November. Mr. Kariuki became disillusioned with CCU and stopped tuition payments. He wants to continue with correspondence instruction and cannot understand why CCU does not provide the same service it did 10 years ago.

We found David Kariuki's experience similar to that of many primary teachers we interviewed in Kenya. The explanation of why this happened told us something of the difficulties of introducing an alternative teaching methodology in a developing nation and of the fragile nature of new institutions in traditional societies.

II. SETTING

When Kenya, a Texas-sized country situated at the middle of Africa's East Coast, attained Independence in late 1963, it was confronted with educational obstacles common to nearly all new developing nations. Noting that only a third of all potential primary pupils were in school and convinced that basic education is vital in building a nation, the new government almost immediately announced a policy goal of universal free primary education. The resulting public clamor for education led to sharply increased school enrollments. Trained teachers with even minimum academic background were scarce as were teacher trainers and administrators. The situation was exacerbated by the fact that less than half the teachers in secondary schools and training colleges were Kenya citizens, for there was strong political pressure to quickly replace the expatriates.

As a stop-gap measure, the Ministry of Education recruited large numbers of unqualified teachers, particularly in rural areas. Nearly a third of the country's 27,828 primary teachers

lacked any formal teacher training and 82 percent had no academic credentials beyond the primary levels they were teaching. Despite the fact that in the seven years following Independence, teacher training college enrollments jumped nearly 50 percent, graduates were unable to satisfy the demand for qualified teachers or replace existing unqualified staff in primary schools. Compounding the shortage of qualified teachers was the fact that the teaching profession provided an attractive reservoir of educated personnel that government and the private sector drew upon to replace non-Kenyans. While government challenged the educational system to produce skilled personnel, it simultaneously bid for those qualified teachers best equipped to meet the educational challenge.

The problem drew early attention from the Kenya Education Commission that was convened in 1964, one year after Independence, under Professor Simeon Ominde to recommend how the education system of the new government should be structured. The Ominde Commission assigned priorities to upgrading primary teacher qualifications and expanding the number of schools to cope with a projected primary school population of some three million. Only one million were then in school. Impressed with the potential of radio for adult education, the Ominde Commission recommended that government "provide a combination of lessons by radio with an approved correspondence course" for teacher training. The Commission pointed out that the Ministry of Education itself might have to produce correspondence courses, reflecting the concern of educators about the proliferation of correspondence instruction offered by commercial firms that was often expensive and poorly suited to the needs of Kenyan students.

As the Ominde Commission was formulating its recommendations, a panel of U.S. educators headed by Professor Wilbur Schramm of Stanford University visited East Africa with AID support to assess the potential of introducing modern technological approaches to education in the region. Schramm at the time was advising the Government of India on the use of satellites to transmit television instruction to rural classrooms. Kenya's neighbors, Uganda and Tanzania, were also faced with the problem of rapidly producing large numbers of trained primary teachers. The Schramm team recommended that these countries use correspondence study and radio instruction in tandem. Impressed with the Schramm study, AID missions in Uganda and Tanzania arranged for a team to visit from the University of Wisconsin Extension Program which had employed this technique with considerable success in the U.S. midwest for many years. The team was asked whether radio correspondence education could effectively train teachers in what continued to be a predominantly British educational system. Would it work in societies where sending correspondence lessons through irregular mails to rural areas was chancy? Even if radios were

available to rural teachers, could programs be heard with sufficient signal strength at times when they could listen? Could teachers be motivated to enroll in correspondence courses? Would such instruction equip them to pass the national examinations required for promotion?

The Wisconsin team concluded that these and other problems could be overcome and therefore that radio correspondence education made sense. Changing political circumstances then necessitated shelving the plans for Uganda and Tanzania. Ironically, while Kenya had not requested the team's services, the Wisconsin faculty had informal discussions with the University College in Nairobi and described its findings. These talks prompted Kenya to ask AID to have Wisconsin help develop a Correspondence Course Unit within the University's Institute of Adult Studies.

Kenya's subsequent experience with radio correspondence teaching for primary teachers has attracted educators from more than a score of other Third World countries. Many view the Kenya model as an answer to the dilemma of how primary teachers can be adequately trained both academically and professionally in sufficient numbers to satisfy rising educational expectations and enrollments without building and staffing new teacher training colleges.

Yet, the long-term outlook for Kenya is far from bright. The nation's exploding rate of population growth reached a record 4 percent in 1980, the first country to reach that level. If this rate is sustained, Kenya's population will more than double by the year 2000 in a country where the livelihood of 95 percent of the people is dependent upon agriculture. Pressures on the land are approaching those of Bangladesh and Indonesia where birthrates are declining. Population density is exacerbated by the fact that huge pastoral regions are sealed off in game reserves to protect threatened species of wildlife and sustain the lucrative tourism that is Kenya's second largest source of income. But preserving animal species has its drawbacks. In the ancient coastal town of Malindi, primary schools are practically deserted during June as children are conscripted to chase marauding monkeys and baboons from ripening field crops. Primitive Maasai cattle herders frequently are arrested for trespassing in game parks when their own rangeland dries up during periods of drought.

Kenya's economy has failed to keep stride with its burgeoning population. A trebling of oil prices since 1978 coupled with global price declines in the country's principal exports, coffee and tea, have led to a serious balance of payments deficit and a precipitous drop in foreign exchange reserves. Like most of the 92 oil-importing Third World nations, Kenya must divert funds earmarked for development to buy oil,

now spending its entire coffee crop earnings on petroleum. It has abruptly scaled down its development plan which as late as 1979 called for a five-year investment of $11 billion.

The impact of curtailed funding is especially acute in education. During the 17 years since Independence, a third or more of the national budget was allocated to expand or improve education. Finding it necessary to do more with less in education, Ministry of Basic Education officials look to a revival of "distance teaching" as one means of responding to aggressive public demands for educational opportunities.

In November and December 1980 the Agency for International Development (AID) assigned three of its professionals to appraise the long-term impact of the experiment with radio correspondence teaching upon the educational system and society of Kenya. Their findings are the subject of this report.

III. THE RADIO CORRESPONDENCE EDUCATION PROJECT

A. Description

A three-person University of Wisconsin team was assigned to the Institute of Adult Studies in early 1967. AID mapped out an operational plan for the team with a multiplicity of objectives. Wisconsin was to "provide technical advice and assistance in the establishment of a Radio Correspondence Instruction Unit (CCU) in the Institute of Adult Studies...." In addition to the preparation of materials required to upgrade teacher credentials to the Kenya Junior Secondary Examination (KJSE) level, the contract called for 10 additional services to be performed. Included were tasks such as training staff in techniques of using radio and correspondence materials to improve classroom instruction, preparing training materials for primary school graduates unable to be placed in secondary schools, developing courses leading to a Certificate of Adult Studies (including some for presentation on TV), and organizing radio correspondence instruction with supervised groups.

Radio correspondence instruction initially was designed to upgrade the lowest levels of "qualified primary teachers," i.e., those with teaching certificates but limited academic qualifications. After two years, a program also was developed for unqualified teachers--those without teaching certificates. To be promoted these teachers had to pass the national Kenya Junior Secondary Examination (KJSE), which requires the equivalent of two years of secondary education (Forms I and II). Since most in-service teachers could not get leave for two years of additional schooling, correspondence courses were

introduced in English, Kiswahili, history, geography, mathematics, biology, and physical science, the subjects covered in the examination.

B. How the Radio Correspondence Method Works

The instructional program was provided through the Institute of Adult Studies at the University of Nairobi. The program was designed to facilitate and maintain contact between student, teacher, and the CCU which administered the program. The relationship ran from recruitment and enrollment through the distribution of course materials and marking of lessons to end-of-course examinations. Correspondence tutors prepared the instruction. Enrollees received lessons, study guides, textbooks, and teaching materials such as maps, set of mathematical instruments, science kits, and so on. Students had the option of enrolling by mail or in person either at the Institute or one of the provincial adult education centers.

After mailing each completed lesson to the CCU, the enrollee waited several weeks for it to be marked and returned together with the next lesson. The courses were marked by some 50 secondary school and university teachers in the Nairobi area who worked part-time. Self-test exercises included in the study guide permitted students to check their understanding of each lesson.

Each subject was supplemented by a 15-minute radio program broadcast twice weekly from 5:15 to 6:00 p.m. throughout the year over the government-run Voice of Kenya. The radio lectures were not required listening but conceived principally to pace and encourage slower students. The radio teacher highlighted important points in each lesson and supplied a summary at the end of each teaching unit. Radio tutorials sought to replace the usual function of a classroom teacher in encouraging and sustaining the interest of slower or less-motivated students, clarifying lessons, and answering questions. A large number of enrolled students listened to the radio instruction regularly even though many worked through their lessons well ahead of or behind the radio schedule. Radio lessons were prepared in close collaboration with correspondence course writers. As radio began to attract many casual listeners besides students taking the correspondence courses, the CCU recognized the existence of a far larger "eavesdropping" audience.

Classroom instruction was offered to CCU enrollees during school vacation periods in short residential courses at teacher training colleges and the better secondary schools. While many teachers could not afford the additional tuition, travel, and subsistence expenses, a surprising number took advantage of

this instruction in order to speed up their training and chances for promotion.

C. Problems with the Project Design

AID's project agreement with the Kenya government did not specify the number of teachers who would be enrolled in correspondence courses. As the program got underway, the Education Ministry reached an understanding with AID that a teacher enrollment of 2,000 would be desirable during the initial two years of the project. During the second year, the Ministry asked CCU to undertake a new program designed to upgrade the qualifications of primary teachers who lacked either teacher training or primary school leaving certificates.

The University of Wisconsin team initially was comprised of three full-time advisers who were supplemented from time to time by six short-term consultants. The team leader, Dr. Authur Krival, doubled as correspondence instruction specialist. Besides Krival there was a radio-TV instruction specialist, Norman D. Michie, and an office manager/administrative specialist, Jeremiah E. Parson. Krival argued that a fourth specialist, an expert in radio correspondence education as called for in the original proposal, was essential. At first the AID Mission was unconvinced, but eventually, 18 months into the project, the contract was amended to permit Carl Vanderlin to join the team in this capacity. His presence allowed Krival to devote more time to establishing closer working relationships with other institutions. One such organization was the Kenya Institute of Education with which CCU then collaborated successfully in training unqualified teachers. Krival found time to chart new activities for CCU, such as planning an external degree program with the university which would use correspondence courses and broadcasts.

Krival became convinced that the operational plan AID had prepared was overly ambitious and thus impractical; it should be revised to permit the team greater flexibility in pursuing the project's primary objectives--institution building and development of the program. Again, AID objected. However, the Mission ultimately concurred in an amended scope of work which focused on creating a sustained capability within the Institute of Adult Studies to produce radio correspondence courses and instruction materials for secondary school level courses which could be used by teachers or other adults on grounds that the new educational technology should, as the original project design called for, address a wide range of national needs.

D. The Wisconsin Team's Experience With Space, Equipment, and Personnel

During its formative years progress on the project was hampered by lack of office, shop, and radio studio space as well as housing for its senior staff. Temporary quarters on the University of Nairobi main campus were inadequate as were borrowed facilities at the University of Adult Studies located 10 miles from the downtown Nairobi campus in the suburb of Kikuyu. When AID was unable to provide funds for a building, the Government of Denmark contributed $243,314 for offices, studies, printing facilities, and faculty housing at the Institute of Adult Studies. Denmark's gift later proved crucial to the survival of CCU because possession of the physical facility assured that it would become an integral, permanent division of the Institute with a guarantee that the space would not be preempted.

Recruiting and retaining qualified Kenya counterparts proved troublesome for the Wisconsin team throughout its four-year stay. Unlike the Institute of Adult Studies, CCU only had authority to offer year-to-year contracts without the possibility of tenure. Opportunities for advancement were limited. Three exceptional Kenyans with degrees from Syracuse University returned to Nairobi shortly after the project was initiated in early 1967. Two were destined to play key roles not only in making the project a success, but in preserving the institution itself. David Macharia, an ebullient specialist in adult education, rose rapidly to become Director of the Institute of Adult Studies. Macharia managed to preserve CCU when university authorities sought to abolish it following a change in government policy. Peter Kinyanjui, an ambitious 1966 graduate in media education, joined CCU as a radio tutor and subsequently became Krival's counterpart. Kinyanjui was named head of CCU upon Krival's departure in April 1979, and he is now Director of the Institute. Khalfan Mazrui, also Syrucuse-educated, started as a course writer and later was promoted to substantially greater responsibility. It was this early Kenyanization of the CCU leadership, which predated the Wisconsin team's departure and the end of AID assistance by one year, that helped to clearly establish CCU as a Kenyan rather than U.S. component of the Adult Studies Institute.

AID supplied the essential imported equipment to launch the radio correspondence program. To reproduce large quantities of lessons, teaching materials, and guidelines, the CCU was supplied with a small offset press, stitching machine, typewriters, darkroom equipment needed for the lithography unit, and photocopier. The radio division was equipped with studio, control room, and audio taping equipment. A Jeep was procured for the team's official travel. Of equal importance

the 1970-1974 development plan to underwrite the Correspondence Course Unit when U.S. assistance ended in 1971.

IV. IMPACT FINDINGS AND ANALYSIS

A. Implementation

The Radio Correspondence project effectively achieved its stated goals of helping to upgrade large numbers of lower level primary teachers who lacked academic qualifications and professional training. It set in place the institutional capability and methodology in the Correpondence Course Unit through which Kenyans, particularly those without access to formal education, could be trained expeditiously.

In a remarkably short time, the University of Wisconsin team transferred the requisite knowledge, skills, and equipment to apply distance teaching to nonformal education. Despite difficulties of recruiting and retraining staff, a core group of competent, well-educated Kenyan teachers was able to consolidate the adaptation of this new teaching method and establish it as a permanent feature of Kenyan education. With considerable innovative skill and determination, the Kenyans are presently developing applications far beyond the expectations or goals of the original project.

The project is exceptionally well documented, including audit and chief of party reports as well as several articles, case studies, and evaluations which have been prepared. Peter Kinyanjui, the Kenyan counterpart who became director of CCU, has written extensively about it. University of Nairobi students have conducted studies and based several graduate theses on salient aspects of the program. Government of Kenya documents on education policy and planning contain numerous references to CCU. Detailed feedback on operations, course content, and broadcasts is found in surveys conducted by CCU in 1968 and again in 1977.

B. External Evaluation

The first complete external assessment was conducted in 1972 by German sociologist Klaus-Peter Treydte under the auspices of the Freidrich Ebert Stiftung Research Institute of West Germany. Treydte appraised the quality of courses, the efficiency of the CCU, and the usefulness of the distance teaching method in three ways. He compared examination results of CCU students with those who studied for the exams in

secondary schools or privately, and interviewed teachers who had taken the courses, as well as educational administrators, headmasters, school inspectors, and other officials. Questionnaires were also circulated to selected enrollees.

Treydte's principal findings were, first, that CCU was "contributing to counteract imbalances and inequalities in education with respect both to regions and to the rural-urban imbalances." Second, CCU was "helping to improve the social status of the weakest group within the teaching force, the unqualified teachers." An analysis of pass rates revealed that the CCU was extremely effective in preparing students to pass the KJSE.

Teachers interviewed in the Treydte survey revealed that there were values in taking the correspondence courses other than improving earning capacity, job security, and status that comes with a teaching certificate and a promotion. Teachers said the courses helped them teach more effectively and with more self-confidence. Confirmation that teacher performance had improved was expressed in the team's interviews with headmasters, inspectors of schools, and administrators. Further evidence to support this view was found in the examination results of pupils which showed improvement after their teachers had completed correspondence instruction. Of more significance may be the fact that 48 percent of the respondents pursued further courses, with 20 percent going on to study for the "O" examination (equivalent to a high-school leaving certificate).

The 1972 sampling disclosed that 20 percent of the respondents lent instructional materials to someone else, usually another family member or a fellow teacher. The survey indicated that the preferred time for radio lessons for teachers was after 8 p.m. Nevertheless, most teachers did manage to listen to some of the weekday broadcasts between 5 and 6 p.m. Some did not leave school until 5 p.m. or later and missed the broadcasts unless the school had a radio. Treydte's findings were borne out by the AID evaluation team which was told by teachers that lessons were broadcast either when they were on their way home from school or busy with dinner and getting the family settled. To this date, the Voice of Kenya has not been able to reallocate broadcast time to accommodate teacher preferences.

Measured in enrollments and numbers of teachers upgraded, the project had an impressive impact. Enrollments continued to grow following departure of the Wisconsin team, paralleling the rapid expansion of the primary school system. From 1968 through 1974 over 8,000 unqualified teachers earned primary school certificates and 4,000 enrolled to study for the KJSE. In 1974 the CCU began offering "O"-level courses to enable students to pass the East Africa Certificate of Education

(EACE) examination which covers the equivalent of 11 years of formal schooling.

In-service teachers enrolled in great numbers after they learned they would be promoted automatically when they passed the KJSE or EACE ("O"-level) examinations. As the secondary schools expanded and turned out more graduates, in most regions sufficient numbers of "O" level certificate holders became available to fill primary teacher vacancies.

C. The Deterioration and Near Eclipse of the CCU

The Treydte survey correctly forecast the potential impact that numerous teacher promotions each year coupled with the cost of hiring an average of 5,000 new teachers annually would have on the national education budget. The availability of CCU instruction to upgrade teacher qualifications and salary status clearly hastened the crisis in educational finance and ironically contributed to removal of the major incentive for teachers to enroll in CCU courses--assured promotions. The Ministry of Education eliminated automatic promotions for primary teachers in 1974, but the consequences of this decision were not felt until 1977, when enrollments plummeted. That this was an indicator of the success of efforts to upgrade poorly prepared teachers and improve the quality of primary education made the problem no less compelling.

As enrollments plunged, CCU, which had relied heavily upon tuition payments and the sale of course materials, began operating at a deficit. Budget cuts meant not only that staff vacancies went unfilled, but that CCU tutors had to be assigned to teach part-time in other divisions of the Institute of Adult Studies so they would not be vulnerable to dismissal. There was a report that the Minister of Education even considered terminating the Ministry's subsidy for CCU.

Although the CCU survived as an institution, there is widespread evidence that during the next few years its operations and servicing of clients deteriorated badly. The impact evaluation team learned in its field visits that the CCU program is thought of as a past rather than present activity. In fact, many informants were surprised to learn that CCU courses are still offered. When presently enrolled students were encountered, complaints were voiced that course materials took too long to arrive after fees were paid, that lessons were not corrected and returned promptly if at all, and that queries to CCU went unanswered. Tutors no longer traveled to confer with students or to seek new enrollees.

The near collapse of CCU in 1977-1979 led to a period of intense searching for alternative functions. CCU directed its attention to other potential audiences and sought to develop commercial courses after ascertaining a demand for them. An Account Clerk Stage I course was offered in 1976. Several students who enrolled in this program were still waiting for the promised Stage II courses four years later! CCU clearly has disappointed the expectations of its original constituency and indisputably paid a stiff price for its institutional survival.

Some former CCU students who would have preferred to continue their "O"-level preparation with CCU switched to commercially offered correspondence courses or private study with texts purchased from bookstores. Although in 1972 CCU stated its intention to offer full course requirements for the principal "O"-level subject, they still are not available. Yet, despite these difficulties, CCU continues to be viewed by many young adults interviewed as the most desirable alternative for achieving more education.

CCU radio lesson scripts remain essentially unchanged from the originals produced eight or more years ago. Students enrolled for "O"-level courses study without the reinforcement of radio instruction, usually considered an integral component of distance teaching. CCU officials explained that radio lessons for instruction beyond the KJSE level are still in preparation.

The CCU early demonstrated its ability to adapt to the rapidly changing national educational picture by offering an independent course of study at the KJSE level, by quickly revising the modern math academic course to meet the needs of teacher in-service training, and later by introducing courses toward the full four-year secondary certificate (EACE). Given the financial burden of sustaining a promotion system based solely upon academic achievement together with the increasing abundance of new teachers with EACE passes, the government became far less inclined to encourage teachers already in the system to pursue programs geared to achieve a similar academic level. In a sense, then, it was government rather than CCU which in the mid-seventies abandoned the rural primary teacher who had less than an "O"-level education.

AID was not invited to consider additional assistance to help the CCU over its difficult period. It is conceivable that if asked, U.S. specialists in radio correspondence education could have suggested alternative applications of this approach to serve society needs. However, the Kenyans themselves clearly demonstrated innovation and institutional flexibility in pursuing other possibilities. A new grant to cover salaries and operating expenses would have helped the CCU to maintain the standards of servicing enrollees that had been established

by the Wisconsin team, but this is not the type of subvention AID usually approves on the grounds that this responsibility rests with the host government or institution.

D. Impact on the Social Status of Teachers

It is difficult to assess whether the radio correspondence project contributed measurably to raising the social status of primary teachers. It was not a stated project objective. There is evidence based on test scores that upgrading teachers academically and professionally enhanced the instruction received by some children. This was offset, however, by the overall rise in levels of academic achievement and continuing inflation which has outpaced primary teacher salary increases. Another impact of the project was that the presence of trained teachers with senior secondary certificates in schools headed by teachers who rose through the ranks with little more than primary education and two years of teacher training inevitably created tension. The current policy of the Ministry of Basic Education, which explicitly recognizes the primacy of professional rather than academic qualifications, has an adverse impact upon the social status of teachers and would seem to run counter to values regarded as desirable in broader Kenyan society.

E. Limitations on the Impact of Radio Education

Kenya has pioneered in the use of instructional radio in Africa. It has the expertise, experience, and evidence of accomplishment to justify wide-scale use of this comparatively inexpensive medium. However, until additional air time can be allotted to education, the full potential of this exceptional educational tool cannot be realized. Existing transmitters cannot accommodate many listeners who seek to meet Kenya's pressing educational needs, because broadcast time is not available to air or repeat programs at times convenient to them. Programs for teachers compete both with commercial allocations of airtime as well as with demands to accommodate an increasing number of other educational applications such as direct broadcasts to classrooms. While educational programming is carried on both the national and general services frequencies, the government acknowledges the need to establish an additional radio channel exclusively for education. With current severe constraints on the national budget and foreign exchange limitations, it is unlikely funds will be earmarked for this purpose.

There are other reasons radio could be more effective than it has been for teacher education in Kenya. Investment in formative research has been insufficient to develop and produce optimal educational radio programs. Broadcasts suffer from a tendency to present lectures in traditional style or read from books rather than exploiting radio's unique characteristics as a teaching medium. Serious attention has not been given to comparing the cost of radio for education with traditional teaching methods. No effort has been made to develop innovative budget practices and alternative funding sources for broadcasts.

F. Secondary Consequences of the Project

There is little evidence that radio correspondence education has improved conditions for the marginal groups and poor of Kenya, although it has the capability to do so. Kenya's 1979-1983 Development Plan expresses specific concern for these groups--women, nomadic pastoralists, the very poor, the handicapped, and others who are unable to obtain a fair share of national economic benefits. The Plan states that development initiatives should be designed to produce more equitable distribution of scarce national resources and address the needs of the poor.

Significant disparities in school attendance persist between boys and girls of primary school age and among different regions of the country. Despite narrowing gaps, male-female differences remain large in rural areas where poverty and custom inhibit parents from investing either in actual outlays or because of the opportunity costs to educate girls.

Perhaps more alarming is that in Nairobi itself there was a net decline from 1976 to 1979 in the proportion of school-age girls in class. With only 70 percent attending class, Nairobi is exceeded in proportional enrollment by all provinces except Northeastern and the Coast. This trend is attributable in part to the growing chasm between enrollments of boys and girls in an educational system financially limited in expansion because self-help efforts cannot keep abreast of the need for more schools.

Declining primary enrollments of girls in Kenya's sprawling capitol reflect in part their high employability as housemaids and baby nurses for low- and middle-income working mothers. A striking confirmation of this trend in the larger cities was observed in an adult literacy course in the suburbs of Kisumu on the shores of Lake Victoria, where the entire class consisted of 11- to 14-year-old girls.

G. Unplanned Impacts of Distance Teaching

By 1980, total course enrollments in the Correspondence Course Unit had fallen to 476, barely 5 percent of what they were in 1969 when over 10,000 were enrolled in courses--2,444 in the KJSE and 7,670 in other subjects. In spite of low enrollments at present, the CCU has demonstrated its resilience and potential by developing a dramatic array of imaginative new applications for distance teaching. The implications for Kenyan society are central and far-reaching. The planned applications of correspondence education over the next 5 to 10 years are of particular interest to AID because each has a direct bearing upon AID's New Directions mandate. Kenya's ability to move rapidly with these new applications would not have existed without the AID project and the groundwork laid by the Wisconsin team.

1. The Adult Literacy Program

In December 1978, Kenya President Daniel arap Moi announced a five-year universal literacy program with the aim of teaching Kenya's estimated seven million illiterate citizens to read and write in both their mother tongue and Kiswahili, the national language, by 1983. The Department of Adult Education in the Ministry of Culture and Social Services turned to the University's Institute of Adult Studies as its principal resource to implement the program. The training facilities of the Adult Studies Center have been used to conduct intensive two-month courses for the 172 division-level adult education officers selected to supervise the 3,000 full-time and 5,000 part-time teachers hired for the literacy program. The training of these adult education/literacy teachers will follow the three-way distance teaching model, combining two-week face-to-face workshops with correspondence courses and radio lessons prepared by the Department of Adult Education in cooperation with CCU.

Even with the President's blessing the program is confronted with serious social and psychological problems in preparing new literacy teachers. Men are often reluctant to enroll in classes with women and youngsters. Young teachers lack status acceptance by elders. Training periods are short and classrooms inadequate. But since literacy is regarded as essential to Kenya's future agricultural and industrial development, the program has high priority. Its success will depend largely on how rapidly and effectively adult literacy teachers can be trained through correspondence and radio instruction.

The importance to women of alternatives to formal schooling is no more clearly exemplified than in their massive response to the Adult Literacy Campaign. The government perception is that literacy will improve farming, nutrition, and health practices in addition to promoting a sense of national identity that could help overcome regional consciousness and traditional ethnic group competition. Women are responsible for most agricultural labor and food preparation in addition to the socialization of children. They are estimated to constitute 30 percent of wage-earning household heads in urban areas and roughly 25 percent in rural areas. Improving their access to education through literacy classes or correspondence education can be expected to broadly benefit family welfare.

2. The Primary Teacher Updating Program

World Bank funding is being sought for a Ministry of Basic Education program which calls for a massive Primary Teacher Updating Program. It will involve correspondence courses, radio lessons, and face-to-face instruction. The proposal does not refer to the need to improve the preparation of teachers in academic subjects or to upgrading, so clearly participation is not coupled to promotion.

The stated objectives are to:

- -- Retrain teachers in modern methods of teaching a new basic education program;
- -- Provide an induction course for about 500 untrained teacher recruits each year;
- -- Offer basic professional training for untrained teachers already in service (about 30,000 at present).

Since as many as 45,000 teachers might enroll in a particular course in any given year, correspondence materials will need to be produced in large press runs when the program is funded. Plans include production of 100 original radio programs each year with each to be repeated once, coming to a total of 2,000 radio lessons or approximately 12 programs for each major subject area plus weekly reviews.

The updating unit is considered more or less permanent and will continue to improve the teaching staff as changes in curriculum warrant. In-service training for updating will be required of teachers, with tuition and materials costs borne by the government. The total development cost is estimated at nearly three million Kenya pounds ($8 million), with recurrent annual expenditures budgeted at just over two million pounds ($5.3 million). A major role is envisioned for CCU whose staff participated in the study that developed the proposal.

3. Primary Education for Nomadic Peoples

Providing satisfactory formal schooling for the children of nomadic groups is always a dilemma in most developing countries. Kenya is no exception. Its nomadic population, although realtively small in number, is scattered in sparsely settled regions of the country. The isolation of these groups from services is particularly acute and long has been recognized as a serious social problem. In Northeastern Province only 9 percent of primary-age children go to school; many who do attend ar over the age of 12. In arid Marsabit and Isiolo parents are known to frequently spirit their children away from boarding school at night, fearing the youngsters will not find their way to rejoin their families during school vacations or upon graduation.

Correspondence education reinforced by radion and supported by mobile teaching units (a proposal made in early national development plans) might provide a more realistic and less expensive means of delivering education in remote regions than the current scheme that calls for creation of boarding schools at the primary level. Several CCU lecturers interviewed believe that distance teaching should be used not only to train the teachers of nomads, but as a means of reaching the pupils themselves. Inexpensive transistor radios are proliferating among the pastoralists, and with the new literacy program it is now possible to supply nomads with simple, inexpensive teaching materials in their mother tongues as well as Kiswahili. the lecturers proposed that experiments be conducted among these groups to ascertain whether radio correspondence teaching is a viable alternative.

4. Other Unplanned Impacts in Kenya and Abroad

A number of applications of the CCU distance teaching capability not anticipated in the project design have proved successful. For example, the Kenya Institute of Education asked CCU faculty members and tutors to train a number of secondary school teachers and lecturers from teacher colleges in producing radio script and course materials for its Education Media Services. The program has been very successful. The Cooperatives College of Kenya requested CCU assistance in setting up a correspondence course facility to train field officers in organizing and managing cooperatives for rural agricultural production and marketing. When the program proved effective, CCU was asked by the International Cooperatives Alliance two years ago to extend its training workshops to Tanzania, Zambia, and Mauritius.

One of the tutors trained by the University of Wisconsin team, Khalfan Mazrui, served as a resource specialist in a program in which CCU collaborated with the British Council and Department of Adult Education in designing and preparing radio materials for new literates in the Meru District. Another CCU-trained specialist, Daudi Nturibi, helped UNICEF to launch a million dollar program to train extension workers in communications for social development in countries of Eastern and Southern Africa.

Kenya's use of three-way distance education to upgrade teachers has been studied and adopted by many developing countries in Africa and Asia. CCU had been tapped by the UN Economic Commission for Africa to help train development specialists. Workshops, consultant services, in-service training opportunities at the Institute of Adult Studies, sample course materials, textbooks, and radio scripts have been provided to more than 15 African countries and to institutions in the Philippines, Papua New Guinea, Sri Lanka, and Nepal.

In 1973 CCU organized the African Association for Correspondence Education, an association of 40 government-sponsored correspondence training institutions and several hundred individual professional members. It conducts conferences aimed at fostering the advancement of distance teaching throughout Africa.

An impressive share of the Institute of Adult Studies' human and financial resources has been devoted to technical cooperation among developing countries. The CCU staff has conducted workshops and individual tutors have served as consultants. Educators from Zambia, Lesotho, Swaziland, Uganda, Tanzania, the Seychelles, Botswana, and the Philippines have studied the operations.

V. CONCLUSIONS AND LESSONS LEARNED

The objectives of the technical assistance and institution-building effort of the AID project in Radio Correspondence Education in Kenya were fully met. The experience in Kenya has made it possible to state several principles with respect to education in developing countries.

1. The formal school system alone cannot meet rising educational aspirations in most developing countries. The cost of traditional education coupled with a rapidly expanding population, even when the economic sector is expanding, outstrips a country's ability to support education and imposes an impossible burden upon the economic and human resources of a country like Kenya.

2. Alternative teaching methods can be integrated into the educational strategy of a developing country, given the right set of circumstances. A number of fortuitous factors converged in this project: an innovative concept; a country that had recognized the need; flexible donors (AID and the Danish Government); an implementing institution, the University of Wisconsin, with expertise in correspondence and radio education for adults, that assisted in both design and implementation of the projects; a competent project staff; a target population of disciplined and highly motivated people (the primary teachers); and a group of influential Kenyans with shared perceptions arising from common experience, i.e., training at Syracuse University. Each proved critical to the project's success.

3. Radio correspondence courses can be a viable alternative to formal schooling. The project demonstrated that this method can teach people who want to progress through the formal system as effectively as traditional methods. It was also a cost-effective approach for reaching a professional population, such as in-service teachers in widely dispersed locations.

4. The radio correspondence technique can be applied to a variety of education needs. In Kenya, it was used successfully to rapidly train thousands of primary teachers. There is good reason to believe it wil succeed in the current ambitious endeavor to train some 8,500 adult literacy teachers. It can be used to retrain teachers in modern methods and provide basic skills to untrained teachers. This technique probably can be applied with success to nonformal education at all levels, including external degree studies at the university level. It can be used to train specialists to organize and manage cooperatives, social development extension workers, development workers, people who need commercial skills, and those working with the newly literate.

5. The radio correspondence method promotes equitable access to the education system. It enables geographically isolated people and others excluded from the formal system to further their education. In a country where large numbers of women traditionally have not participated in the formal system of education, this method offers a practical alternative.

6. A market model may divert an educational institution from long-range socially-sound objectives. The CCU turned to commercial courses in an effort to increase enrollment and income from student fees rather than promoting vocational or academic courses which were not as salable. When educational institutions become principally dependent upon selling their services to clients rather than reflecting national education and social priorities, quality and support services are likely to suffer.

7. A minimal degree of social and economic development is necessary for a new educational technique to take root in a community. Correspondence education was initiated with strongly motivated and disciplined teachers who had some financial resources available to improve their education and skills. The method proved more successful with them than with young primary school leavers. Once the method is seen to work and the capacity becomes institutionalized, it may succeed with higher risk groups, e.g., nonteachers, younger students, and less well-educated individuals.

8. Individuals in developing countries, particularly economically marginal groups including teachers, will not seek further education and upgrading unless there are clear financial rewards. Teachers invested their own money and efforts to complete correspondence courses when it was fairly certain that in doing so they would receive salary increases. When promotion policy changed and the pay-off became uncertain, teachers did not invest.

9. AID Missions should keep in touch with assisted institutions even though projects are completed and there is no intention of renewing assistance. Leaders of the Institute of Adult Studies and the Correspondence Course Unit said they would have been grateful for continued indications of U.S. interest in the progress of an activity of which they are proud. The Institute and CCU also could have assumed the initiative in updating the Mission on developments in the program.

10. A high return can be realized from a minimal investment of AID funding to provide for informal exchanges of information about the distance teaching method among Third World countries. Visiting U.S. experts nurtured the concept of distance teaching and CCU professional staff provided collegial support to other countries interested in adopting this approach. AID might actively seek ways to ignite such interest through professional interaction by funding the travel of both U.S. and Third World specialists.

11. A distance teaching program is absolutely dependent upon well-organized field support in close touch with the target population. Unless effective communication is sustained with current and prospective users, enrollment will decline and the quality of the instructional program will deteriorate.

VI. IMPLICATIONS FOR POLICY AND PLANNING

University of Nairobi Vice Chancellor Joseph Mungai told the evaluation team that Kenya's 250,000 primary school graduates are forced onto the job market each year without relevant skills. He said that although 30 percent of the national budget goes to formal education, it cannot meet the educational aspirations of 70 percent of the population. The formal education system is not providing sufficient opportunities for post-primary education and the economic sector cannot absorb all of the primary school leavers.

The Vice Chancellor explained that by providing the capability to expand opportunities through nonformal education, the AID project in radio correspondence training has provided a promising long-term answer to Kenya's educational dilemma. Now that the distance teaching experiment has matured and proved feasible, he said it should be extended by the Institute of Adult Studies to offer instruction ranging from the secondary school levels through an external university degree. Dr. Mungai argued that an external degree program through correspondence and radio instruction should be established to accommodate an initial enrollment of 20,000, to satisfy at least part of the accumulated demand. In his view such a program through an "invisible university" should be given favorable consideration over building a second university at an estimated cost of $53 million which could enroll only 500 students a year compared with the investment required for an external degree program--about $660,000 in start-up costs plus $10.7 million to cover its initial five-year operation.

The political and social realities of Kenya may present insuperable obstacles to Professor Mungai's proposal. There is public pressure for a second university and deeply entrenched support for the formal school system which is linked to certificates, promotion, and increased earnings for the teaching profession and graduates. People living at the subsistence level will likely be reluctant to invest in educational opportunities not geared to their ultimate entry into the formal educational system. The team hopes it is wrong in its assessment that this approach is not likely to come quickly, if at all.

The original AID project design called for the U.S. technical assistance team to train headmasters and teachers in techniques of radio/correspondence education to improve classroom instruction and to develop secondary-level courses using supervised radio/correspondence instruction, particularly in local Harambee (self-help) schools. Radio correspondence lessons would be prepared for out-of-school youth and adults who graduated from primary school for whom future educational

opportunities were unavailable. Courses leading to a Certificate of Adult Education would be prepared using both radio and television. The Wisconsin team was right in arguing to drop these objectives of the project when the project has developed 14 years ago because they were too diffuse and ambitious, given the limited human and financial resources then available for the project. However, it is of interest to note that most of these activities remain of current interest to the leaders of Kenya adult education and might be developed if funds became available.

Several prerequisites are important in countries that may wish to consider the introduction of distance teaching: strong incentives for learners to invest time and money in courses; a reliable postal system; national radio transmissions which reach most potential clients; a flexible institutional base with a corps of well-trained specialists; and a willingness to apply the methodology to a more equitable distribution of educational benefits to rural and disadvantaged groups.

The desirability of locating a radio correspondence institution within a university is open to question. On one hand, CCU demonstrated that a university-based organization can be productive in teacher training and upgrading primary education. It adjusted policies on the basis of academically sound evaluations. The University of Nairobi precedent that "consuming ministries" should compensate it for training services performed in support of ministry missions is a concept now widely applied by the University in training specialists for other ministries and agencies. Some CCU faculty believe that as a part of the University, the Unit has greater potential for innovation and flexibility, can attract better staff, and can serve needs beyond those of any single government agency. On the other hand, universities often tend to resist innovation. They have difficulty in orienting toward client needs and are inclined to emphasize academic respectability rather than community service or national development. Selection and promotion of personnel favors the academically credentialled, resulting in dominance by narrow discipline specialists.

In providing educational services under the aegis of the university, teachers assumed a national identity that surmounted parochial interests. The courses in Kiswahili for teachers further enhanced a sense of Kenyan identity. Countries faced with building a new nation upon a foundation of heterogeneous ethnic and other interest groups should consider the potential of new educational technologies such as radio correspondence teaching to engender a sense of national identity.

Kenya's experience with distance teaching exemplifies the concept of technical cooperation among developing countries which appears to be gaining broad support within the Third

World. CCU clearly is recognized among Asian and other African countries as well as regional and international organizations as a model for radio correspondence education. Donor institutions should consider the value of facilitating institutions such as the CCU in sharing their know-how in this field with other developing nations.

Correspondence instruction backstopped with radio lessons has an untapped potential for applications considerably broader than training primary teachers as the Kenya experience is demonstrating. Countries should consider its use in rapidly training other groups in the society as Kenya is doing with teachers in social communications, organizers or rural cooperatives, development specialists, agricultural extension workers, workers in rural health education, officers for local councils and teachers for disadvantaged groups such as women, pastoralists and the very poor, the illiterate, and the handicapped.

Education policy planners should keep in mind, however, the limitations of radio correspondence instruction in teaching technical subjects, particularly those which call for experiments or hands-on experience with equipment. Simple science teaching kits in physics, chemistry, and biology were included in CCU course materials with results that were inconclusive at best. Kenya considered but did not employ distance education for teachers in village polytechnics. In some industrialized countries correspondence courses have reportedly been satisfactory in teaching technical subjects, but more experience is needed to ascertain, for example, if this type of instruction is effective in introducing small-scale or appropriate technologies in the Third World.

APPENDIX A

METHODOLOGY OF THE IMPACT EVALUATION

by

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METHODOLOGY OF THE IMPACT EVALUATION

Distance learning by its nature is a process which cannot be studied at first hand; it is individual and sporadic, an activity carried out during the student's free hours, in the late evening or early morning, on weekends and holidays in the home. Correspondence students in Kenya, most of whom have been teachers, are dispersed throughout the country, but many are found in those areas blocked from easy access to classroom learning, either through geographical distance from population centers or underdevelopment, which is a frequent correlate of geographical isolation. Further, the impact of any form of education, but especially of nonformal learning, is very difficult to measure. When this is linked, as it is in Kenya, to the task of assessing the effect of improved formal qualifications on the work of a teacher in the field, the problems of evaluation become immense. There is little agreement about the criteria by which a teacher's effectiveness may be judged. Results on the CPE, the primary leaving exam, which are most often cited, have been shown to be closely linked to other factors besides teacher competence, such as students' socioeconomic background and other aspects of the learning environment.

For these reasons the field methodology adopted to investigate the impact of the Correspondence Course Unit (CCU) in Kenya, which has been used chiefly for improving the academic qualifications of primary school teachers, was generated out of a broad overall strategy which could be adapted to the realities of local conditions. It was clear that we would need to have extensive discussions with central government and local officials familiar with the program and about key issues in the educational system in general, both at primary level and in adult education. In the field we sought to talk to local government officers at all levels, from provincial to divisional, with officers of the University of Nairobi Extra-Mural Studies Department, who provide informal field liaison for the Correspondence Course Unit, and to headmasters, teachers, teacher educators, and students who had first-hand experience as participants in the CCU training.

Initially we had intended to attempt a true random sampling procedure to locate present or past students of the CCU in the field. However, an examination of the files of the Unit showed over eight thousand students on their records; no clear criteria had been agreed upon to distinguish between those still active and those who had abandoned their studies without notifying the Centre. The intermittent character of correspondence studies and the often long duration required to complete a certificate or course under the existing system meant that in practice a dormant student might at some later time resume his studies. As we began discussions with students outside Nairobi

we were exposed to varying experiences with the Unit. The research strategy adopted, then, was to seek informants in the field, with guidance from local education officials, from staff of the Extra-Mural Centres, located in the provincial headquarters of Nakuru, Nyeri, Kisumu, Kakamega, and Mombasa (as well as Nairobi), and through informal contacts with relatives and friends of former students. While this in no way guaranteed a true randomness in a statistical sense, we felt that in the limited time available for work outside Nairobi, of roughly two weeks, we could only adopt an approach aimed at key informants, followed by a "snowball" or "mudball" (as it is referred to in Africa) sampling strategy, i.e., identifying others through our initial contacts.

A decision was made not to circulate questionnaires to former and current participants in correspondence courses for several reasons. First, there simply was not time to circulate questionnaires by mail or to distribute them to individual schools and participants and tabulate the results. Second, the Institute of Adult Studies had carried out various analyses of student performance in the KJSE. More important, in 1972 Klaus-Peter Treydte of the Research Institute of the Friedrich Ebert Stiftung conducted a comprehensive survey which sampled 920 of 2,200 KJSE students as of December 1971. The study involved 30 questions concerning CCU and 270 questionnaires (about 30 percent) came back filled out correctly.

Contacts with local officials were made through the provincial and district offices, with the help of the Extra-Mural staff. Through them, we moved out to 35 individual primary schools, concentrating on those in rural and periurban locations, working through a chain of contacts usually originating in the provincial headquarters town. The flexibility of our planning, and access to four-wheel drive vehicles which was essential, allowed us to innovate, stopping at schools at random, some well off main roads, and exploring rural areas in each province not on our original itinerary. In most municipalities we were told that few urban teachers had participated in in-service training or other upgrading through correspondence studies. Particularly in the larger towns, the desirability of postings had produced a heavy concentration of trained teachers, mostly teacher training college graduates. In Nairobi and Mombasa, the figure is almost 100 percent. This awareness generated a rural bias in our choices of locales.

The need to cover maximum territory in a short time interval necessitated division into working "teams," three in our first week in the field, and two in the second. Each group had its own vehicle and was flexible in scheduling interviews and meetings. In some situations we found that meeting with a group of informed local respondents generated discussions and debate which would not have arisen in a more controlled one-to-

one interaction. In seeking respondents among former and present students of the Unit, as well as anecdotal evidence about experiences with correspondence study, discussions at primary schools were particularly useful. The numbers and diverse backgrounds of the teaching staff of a large primary school almost assured that some would have knowledge or direct experience of correspondence learning. Visits to schools were also planned to provide exposure to a variety of conditions and facilities--from middle-sized rural schools with relative good physical plant and equipment to larger periurban schools, including only basic facilities. The school populations we met varied from fewer than 300 students to almost 2,000, in periurban schools outside Nakuru and Kisumu.

In many primary schools the headmaster would invite all teachers with free periods to join with us in a discussion which nearly always focused on the principal issues we had selected. The size of such groups usually ranged from 6 to 15 teachers. Some would discuss their own experiences with correspondence courses while others would mention what subjects they listened to in the teacher instruction on the radio. Many described their common experience of first-year in-service "professional" instruction taken through 3-week periods of resident instruction during holidays in nearby teacher training colleges followed by a second-year of "academic" correspondence and radio instruction, with vacation periods of resident education in secondary schools.

Throughout the first week of field work, when we visited the areas surrounding Nyeri, Nakuru, Kisumu, and Kakamega, a member of the Extra-Mural Department normally based in Nairobi travelled with us and shared his time between two of the teams. In our second week, when both teams were in Coast Province, the Mombasa Extra-Mural Tutor travelled with one team. With the help of the CCU and of Extra-Mural Department staff, we were able to contact and meet with individual current students of all subject areas, at Extra-Mural Centers and at their workplaces.

Interviews in the field were directed based upon an agreed set of issues identified by the team, but no fixed interview schedule or questionnaire was drawn up; we tried as much as possible to encourage informants to express their views freely on the questions on which they felt strongly. They often raised issues of which we had not been aware. While we sometimes found information to be duplicated, the frankness of some of the responses seemed to justify this kind of approach. All interviewing was carried out in English and we encountered few problems with comprehension among a literate, relatively well-educated population accustomed to studying and teaching in that language.

Two types of information were sought: factual background information relating to the growth and development of the educational system of the country, including the new Adult Literacy Program, and the Correspondence Course Unit within it, and opinions and impressions of distance education, from the points of view of students, present and former, from those involved in primary education, in schools, teacher training colleges, and at the level of policy formulation.

Our geographical cover included six provinces: Central, Rift Valley, Western, Nyanza, Eastern, and Coast, as well as the Nairobi and Mombasa municipalities (Nairobi has provincial status). While the number of students interviewed was small in relation to the entire enrollment of the CCU, the consistency of their responses, both positive and negative, reinforced our view that some generalizations could be attempted on the basis of such a sampling.

Problems of Bias

No methodology can effectively eliminate the many and varied possible sources of bias. Observations in the field supported our view that we were overcoming some of these. In particular, the consistency of responses over widely varying geographical areas tended to confirm our view that we were tapping reliable information. One caution, however, is in order. The self-selective nature of the procedure used to gather CCU students outside the primary school setting may well have generated a bias in favor of those experiencing difficulties with their studies. This is suggested by the apparent belief of some despite our best efforts to disassociate ourselves from such a role, that we had been sent to serve as intermediaries between the CCU and students in the field. On a different level, in our meetings with officials and policymakers, we were careful to make it clear that our mission was one of evaluation, not of intervention. Everywhere, interest was shown in the information we might carry back to Nairobi, and in gaining access to our report, as it might reveal both the strength and weakness of the program.

APPENDIX B

THE KENYA EDUCATIONAL SYSTEM

THE KENYA EDUCATIONAL SYSTEM

Year	Level	Certification Exam
	Primary School	
1	Standard I	
2	Standard II	
3	Standard III	
4	Standard IV	
5	Standard V	
6	Standard VI	
7	Standard VII	
		Certificate of Primary Education (CPE)
	Junior Secondary	
8	Form I	
9	Form II	
		Kenya Junior Secondary Certificate (KJS
	Senior Secondary	
10	Form III	
11	Form IV	
		East Africa Certificate (EACE)
	Advanced Secondary	(Also called "O" level or Ordinary, or London Certificate)
12	Form V	
13	Form VI	
		East Africa Advanced Certificate (EAACE) (Also called "A" level or Advanced)

Note: Teacher Colleges take students in from all levels, CPE, KJSE EACE, and EAACE, because there are regional differences in availability of academically prepared recruits. However, in the last few years there have been enough "O"-level graduate so that there are fewer from lower levels.

APPENDIX C

CRITICAL GROWTH POINTS IN THE CORRESPONDENCE COURSE UNIT OF UNIVERSITY OF NAIROBI, KENYA

by

P.E. Kinyanjui

CRITICAL GROWTH POINTS IN THE CORRESPONDENCE COURSE UNIT OF UNIVERSITY OF NAIROBI, KENYA

I. INTRODUCTION

This paper is a sequel to the paper I presented at an international conference held at Stanford University in July 1976, entitled "Critical Decision Points In Communication Policy and Planning for Education and Development." I shall attempt to update the developments that have taken place in the Correspondence Course Unit of the Institute of Adult Studies, University of Nairobi and their implications to the national development of Kenya. Certain critical growth points will be discussed under the headings of courses and programs which have been established or are being developed within the Correspondence Course Unit in particular, and within the Institute of in general.

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II. EAST AFRICAN CERTIFICATE OF EDUCATION COURSES

As part of its program to provide correspondence courses leading to higher formal qualifications, the Correspondence Course Unit has developed the following subjects leading to the East African Certificate of Education: English, mathematics, geography, history, general science, human and social biology, and Kiswahili.

The introduction of these courses has meant that the Institute can cater to more candidates through correspondence than by extra-mural evening classes--the latter having now been phased out.

From 1980 onwards, all school examinations in Kenya will be administered by the newly created Kenya National Examinations Council under the Chairmanship of the Vice-Chancellor of the University, Professor J.M. Mungai. All CCU courses preparing candidates for school examinations will henceforth follow regulations and syllabi set and approved by the Council. It is gratifying to record here that two of the Chief Examiners for the Council are existing members of the CCU. They have been consulted on various occasions on matters pertaining to syllabi by the Examinations Council. Several subject panels of the Kenya Institute of Education also include members of staff of the Institute of Adult Studies, while the Director sits on the Academic Board and on the Teacher Education Committee. Through these channels, the members of staff have made their professional contributions to the development of education in Kenya

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in addition to their regular work as course writers, lecturers, administrators, and facilitators.

III. VOCATIONAL COURSES

In order to diversify the range of course offerings to a wider public, the CCU introduced in 1976 correspondence courses for non-teachers in the following subjects: bookkeeping, commercial knowledge, and commercial arithmetic. The courses prepare students for examinations set by the Kenya Accountants and Secretaries National Examinations Board (KASNEB) at Stages One and Two. These vocational courses are gradually proving to be popular with people already working as clerical and secretarial staff in government offices, parastatal organizations, cooperative societies, and the private sectors of the economy. It is planned that higher level courses leading to Certified Public Accountants (CPA) will be introduced later since they have proved their popularity in the extra-mural evening programs of the Institute of Adult Studies.

Through these courses, it is hoped that more functional knowledge and skills will be available to the general population who are not being reached by the existing formal institutions in the country. The Institute is particularly mindful of the large rural population who are not easily reached through the evening class programs, and who do not have easy access to libraries, bookshops and other information centers.

IV. FOUNDATION COURSE IN ADULT EDUCATION BY CORRESPONDENCE AND RADIO

In 1978 His Excellency, the President of the Republic of Kenya, Daniel arap Moi, called for a special program for the elimination of illiteracy in Kenya. The call was a great and welcome challenge to all institutions and organizations which are engaged in adult education. The University of Nairobi through the Institute of Adult Studies is deeply involved in adult education. Among other things, the Institute of Adult Studies offers the only professional training program for adult educators in Kenya and is contributing in a special way towards the national effort against illiteracy.

One of the special contributions by the Institute towards the illiteracy campaign is the Foundations course in adult education prepared for all full-time and part-time teachers engaged in literacy teaching. These number about 3,500 and 5,000, respectively. Apart from a brief induction course given on appointment, these teachers have not had any systematic

training in adult education to provide them with basic knowledge, skills, and attitudes required to deal with adults.

At the request of the Department of Adult Education of the Ministry of Culture and Social Services, the Institute of Adult Studies has mounted a Foundations course through distance teaching specifically for adult literacy teachers throughout the country. The first students will be enrolled in January 1981.

The course will be conducted through correspondence lessons comprised of study guides, self-test exercises, and written assignments and will be supplemented by radio programs to be broadcast over Voice of Kenya. Students will be enrolled with the Correspondence Course Unit and their assignments will be marked and commented on by staff of both the Institute of Adult Studies and the Department of Adult Education. Supervision and face-to-face teaching in the field will be carried out by the full-time adult education officers and their assistants, most of whom have already undergone intensive training in residence at the Institute of Adult Studies.

The total duration of the distance teaching course will be one and a half years to three years, depending on the speed and performance of the individual student. The subjects to be studied will be:

1. Psychology of Adult Learning
2. Human Relations and Communication
3. Methods of Teaching Adults
4. Adult Education and National Development
5. Policy and Philosophy of Adult Education
6. Effective Evaluation for Adult Educators
7. Curriculm Development, Planning, and Administration
8. Introduction to Kiswahili

The correspondence study guides have been written jointly by the staff of the Institute of Adult Studies and the Department of Adult Education. The accompanying radio programs will be written and produced in the CCU studios to be broadcast over Voice of Kenya.

The mounting of this distance teaching course demonstrates the close cooperation existing between the university and the government. It also shows the flexibility of the Institute of

Adult Studies to respond to a national need with great competence and speed in a major cost-effective contribution to the provision of education and training for adult literacy teachers in Kenya. This task is to be carried out in parallel with other ongoing programs of the Institute without any substantial increase in staff and facilities. It is indeed a demonstration of a 'service-agency' role which was envisaged in the original objectives in the establishment of the Correspondence Course Unit.

V. FIRST DEGREES BY EXTERNAL STUDIES

A feasibility report on First Degrees by External Studies was prepared by the Open University Team in February 1976 at the invitation of the University of Nairobi. The report was accepted in principle by the university authorities and forwarded to the government for the necessary funding. The decision of the government is still being awaited. In the meantime there are several issues of implementation which the university and the Institute of Adult Studies need to resolve so that when the finances are made available the program can be launched without further delays.

The Open University Team was convinced that, given appropriate resources, the University of Nairobi could operate a program of first degrees by external studies. It recommended *inter alia* the establishment of an External Degree Unit in the university with appropriate support and resources to be able to carry out the academic activity of course preparation in the faculties concerned, and the related operational and administrative functions.

A. Guiding Principles

The philosophy guiding the above report and proposals is centered around four principles. First, an External Degree Unit offers the university a chance to open some of its courses and facilities to a much wider public than is possible through regular face-to-face methods. Second, these expansion possibilities should be exclusively directed towards breaking some of the most urgent national development bottlenecks. There is already clear evidence that one university is not sufficient for a population of 15 million in Kenya today, and that the government may not be able to afford to build, equip, and staff immediately a second university at present standards and costs. Third, an External Degree Unit should concern itself primarily with those educational problems which, as part of a university, it is uniquely equipped to tackle. And fourth, in

accordance with the university's research and experimentation functions, its External Degree Unit should initially and continuously seek to experiment with new ways of learning and new approaches to education, and through careful scientific research and evaluation, should record and report on all its experiments.

Following these principles and because of the mounting pressure from the general public, it is proposed that the university should not delay any longer before launching an external degree program, if only in one or two limited degree courses and with limited options. The first courses to be offered would be available to students who wished or were prepared and qualified to be guided to take these courses with limited options. This would enable the preparation of the minimum number of necessary courses to make up the first year of the B.Ed. and/or the B.Com. degree course.

For example, if, as is proposed, one of the first experiments is to start an external degree program leading to a Bachelor's degree in education, the first year's courses would have to cover the basic education courses (Ed.5a) which are compulsory and common to all education degree students, plus a combination of two subjects in arts or science (Ed.5b). The two subjects would be selected on the basis of need and available facilities and staff.

If, on the other hand, the first external degree program is to lead to a Bachelor's degree in commerce, the first year's courses would have to cover the four required full courses, namely, Introduction to Economics, Business Law I, Fundamentals of Accounting, and Quantitative Methods I, plus the two required half courses in Business Studies and Behavioral Science I.

At the second stage of the program, this initial experience would be drawn on to provide a wider number of options. There will probably be sufficient time for the External Degree Unit and the teaching faculties to prepare for the second stage of the program since the first year courses will be spread over one and a half to two years through external studies.

The Open University Team's report indicates that it would take approximately two and a half academic person-years to produce correspondence materials covering the first year's work. The Institute of Adult Studies and particularly the Correspondence Course Unit will be instrumental in providing the necessary administrative and production machinery for the program as well as in the training of teams of correspondence course writers and editors from among the academic staff in the Faculties involved. The Open University Team's report recommended the establishment of the External Degree Unit at the

University of Nairobi whose tasks and responsibilities would include:

1. The administration and operation of the external degree program

2. The provision of professionally qualified manpower to advise on structure and presentation of distance teaching materials

3. The provision of editorial services, graphics, and supplementary audiovisual study materials

The establishment of external degree studies will be a critical growth point in the development of higher education in Kenya. It will not only herald an innovative approach to tertiary education but also the provision of continuing education on a mass scale by an institute of the National University as an extension of the inadequate formal schooling given to a large majority of Kenya's youth and adults for only a few years in their lives. In the latter case, it will be a great challenge to demonstrate the feasibility of using distance teaching for specialized training and retraining which is necessitated by changing social, economic, and industrial circumstances in Kenya, and aimed at selected clientele according to their needs. This is the ideal of continuing and recurrent adult education.

As far as the establishment of first degrees by external studies is concerned, a critical decision point will soon be reached. The reasons for this are not difficult to find.

First, there has been a rapidly increasing demand for education in the country. For example, at the Advanced Level, the applications for admission to the University of Nairobi have increased from 563 in 1964 through 2,010 in 1970 to 7,734 in 1979. The figure is estimated to go up to 12,306 in 1980 and up to 17,000 by 1983. This is because life has become increasingly competitive and will continue to be so. As a result, training and qualifications are of increasing and vital importance in acquiring a reasonable income-earning occupation.

Second, there is already a large and growing body of "mature" students who cannot be admitted to the University of Nairobi due to lack of space, teachers, and money. The Institute of Adult Studies has over 1,000 inquiries from adults from all walks of life who have at least one principal pass at the advanced level seeking opportunities to pursue degree-level courses at the University.

Third, there is a large body of professionals working in their different fields and who would wish to earn a university

degree in a particular field, or to earn a second degree to complement their professional qualifications. Such people would obviously not wish to attend the University on a full-time residential basis, but given a chance, they could pursue part-time studies with intensive face-to-face tuition at certain intervals until they complete the requirements for the award of a degree. For such people, distance teaching would seem to be the most convenient route towards the fulfillment of their ambitions.

The University of Nairobi will attain its maximum student enrollment in the 1981-1982 academic year. The proposed second university of Kenya will obviously take a few years to establish and is likely to cost about KŁ120 million and will enroll only abut 500 students initially.

But one thing is clear: the available and projected resources of money and of manpower simply will not allow much greater expansion and improvement in the provision for university education in Kenya during the next decade or so. Therefore, new ways and methods will have to be employed in order to cater to the large clientele while, at the same time, keeping the expenditure on university education in proportion with other educational developments and priorities. Ways and means will have to be found of determining how best Kenya can utilize its limited physical and human resources available at the University in order to achieve maximum educational results, both quantitatively and qualitatively.

Is there room for alternative ways of providing university education and training to all who deserve it in Kenya? Can modern technologies and techniques be used to buttress and supplement the present methods being used at our university? It would seem from all indications and experiences gained in other parts of the world that distance teaching provides part of the answer to these pressing questions related to university education and training in Kenya.

The National Development Plan 1979-1983 is explicit regarding the establishment of an external degree program. In para. 5.131 it states: "In order to cater for those who would like to further their academic studies but are not able to undergo a conventional university education, an external degree programme will be introduced."

The University of Nairobi anxiously awaits for the funds to be provided by the government to launch this program.

VI. PRIMARY TEACHERS UPDATING PROGRAM

The issue of primary teacher education and training continues to occupy the minds of educational planners and administrators in Kenya because of the great importance that the government attaches to primary education. Since the Government of Kenya announced the provision of free primary education for Standard One in Kenya in 1974, it has progressively added one class every year and by 1980 all the seven levels of primary schools were free. This is no mean accomplishment for a government which is already providing free medical services to all citizens.

The provision of free (if not yet compulsory) primary education calls for more teachers to be employed. In certain districts of Kenya, this means that some unqualified teachers will be engaged to teach in primary schools. In fact the total number of unqualified primary teachers in the country has not decreased since the Unqualified Teachers Programme started by CCU and KIE was suspended in 1974 due to the high salary budget for the upgraded teachers.

In 1980, the primary teacher force in Kenya had about 35,000 untrained teachers, the majority of whom were recruited in 1974 directly from school-leavers in order to meet the expanded needs of free primary education. These teachers are not trained in teaching methodology and many of them have also been found to be lacking in academic content of the subjects they are supposed to teach. Hence improvement in the quality of education is regarded by the new Ministry of Basic Education as one of the most important priorities in teacher education. Obviously no such qualitative improvement of education will occur without a major improvement in the quality of teachers and teacher training. This will have to become one of the major growth points in education during the 1980s.

One other recent development in primary education will substantially affect the teacher education program in Kenya. This has to do with the proposed nine-year basic education to replace the present seven-year primary education. The extra two years would mean that the children will leave school at a functionally more mature age than at present. It would also mean that the content would be more vocationally oriented in order to meet the needs of most of the children for whom the basic primary education would be terminal.

The introduction of the nine-year basic education will, of necessity, be introduced in gradual stages. The recommendation of the National Committee in Educational Objectives and Policies (NCEOP) of 1976 is: "To develop a nine-year basic education in the following order: Firstly, achieve universal seven

year primary education; secondly, raise the quality of primary education by providing trained teachers and suitable instructional materials; and thirdly, lengthen the duration of universal basic education from seven to nine years." (NCEOP Recommendation 99).

The implications of these proposals to the whole field of primary teacher education and training are enormous. They will call for careful, concerted, and coordinated efforts of the Ministry of Basic Education, the Kenya Institute of Education, the Institute of Adult Studies, the Voice of Kenya, the Teachers Service Commission, the Kenya National Union of Teachers, and other organizations. A systematic and sustained in-service teacher training program will have to be developed to meet the challenges of the nine-year basic education.

Details of such a program have been worked out in a document entitled "Primary Teacher Updating Programmes," prepared by the Ministry in consultation with other relevant organizations in Kenya. It recognizes that radio and correspondence courses will form an integral part of the teacher updating program. The Correspondence Course Unit will, therefore, be heavily involved in this massive program of teacher education.

It is important that any program of in-service teacher training should not be conceived as a "crash" program to be conducted once and for all. This has tended to be the case too often and in too many developing countries. It should be recognized that, in the long run, a continuing process of teacher education will be the most effective way to deal with the current and future educational problems. It will allow for new methods and techniques, the changes in the curricula (such as those in the nine-year basic education), and the use of newer media in the classroom (such as the new "radio reading project") to be brought to the teacher's attention.

Beyond the classroom, a teacher in a developing country like Kenya is often called upon to play many roles in his community. He is increasingly being involved in harambee (self-help) development projects, and in the teaching of adult literacy and numeracy. He is expected to share his knowledge and skills with the rest of the people in the community. In any rural area of Kenya, the school is an important focal point for many development activities, and the local primary school teacher automatically finds himself getting involved in these activities. His knowledge and communication skills must, therefore, be updated and improved so that he is able to play his part effectively.

The social status of the teachers could also be strengthened a great deal if continuing education and training for their extended roles were provided either as part of their

in-service course or as an extension of general adult education which could be offered through broadcasts coupled with short weekend or vacation sessions.

It will be of little consequence to urge for a closer relationship between the school and the community, or the teacher and the parent, if the teacher does not feel competent enough to take the leadership role and to stimulate discussion on various aspects of national development of Kenya. If teachers are expected to be agents of change, then they must themselves be convinced that development is desirable, and that they have certain abilities to help bring this about. The use of distance teaching media would seem to be ideal in reaching these teachers on a continuing basis.

"What about the nonteachers?" one may ask. There is no reason why distance teaching methods cannot be applied to the training of personnel in other fields of development as well. There is, in essence, no real difference between the role of a teacher and that of an agricultural extension officer. They are all concerned with helping to bring about change. In other words, they are facilitators of change. And they all need to be continually equipped with the right knowledge, skills, and attitudes to perform their difficult tasks of changing their clientele.

One question which seems to be central to the whole issue of continuing teacher education concerns motivation. For teacher trainees the incentives of higher status and salary increments have, undoubtedly, played an important part in sustaining the interest of teachers undergoing in-service training. They certainly have to do a lot of extra work during their spare time in addition to their regular duties. This requires a considerable amount of self-discipline on their part and they should be rewarded for their efforts. The new salary scales introduced in Kenya for all civil servants and teachers in late 1980 will, it is hoped, encourage more teachers to enter and remain in the service.

One would also hope that the teachers will look beyond the material benefits and that they will continue to improve themselves for the rest of their professional careers, and thus help to being about the desirable changes in the country.

Change will come about through teachers of all kinds--if the term "teacher" or "facilitator" is used in the widest sense to include extension workers in agriculture, health, community development, cooperatives, family planning education, and other social services. All these are people who are involved in the educational process--educating the community for change--who have many factors in common. If their training could be coordinated or at least be based upon those elements of objectives

that are common, then there would be a case for attempting to develop a training course with a central core, and this would provide basic training to a large number of these workers who have had little or no training.

It is interesting to note that a large proportion of workers in community development and social services in Kenya will have worked as teachers previously, but on changing their jobs they will have received very little preparation, and this only through short, intermittent seminars and conferences. It seems, therefore, that distance teaching would be ideal in providing basic training to these extension workers without removing them from their jobs for long periods. If the proposed distance teaching course for literacy teachers is successful, there is no reason why it should not be extended to extension workers in other fields, mutatis mutandis.

A special but important category of educational personnel in Kenya is composed of school inspectors and supervisors. These people have a critical role in helping to interpret new educational policies of Kenya, and in bringing fresh ideas to teachers in the field, but few of them are properly trained or prepared for these tasks. Most will have been promoted from their positions as classroom teachers without any further training or orientation. There is no doubt that they, like other teachers, will need to be kept abreast of new ideas and developments if they are to provide effective leadership in education. They will need, from time to time, courses in new subjects and teaching techniques, new approaches to teacher education, a broadened outlook on teacher supervision which emphasizes its advisory and consultancy function, and in the planning and development of integrated curricula in the schools. It seems that this is another area where distance teaching could be applied with great effect, and thus help to speed up the process of modernizing the curriculum and changing the nature of teaching at school level.

VII. POSTGRADUATE DIPLOMA COURSE IN CURRICULUM DEVELOPMENT

In 1979 an innovative venture was started through corporate efforts by the African Curriculum Organization (ACO), the Kenya Institute of Education (KIE), and the University of Nairobi to train curriculum specialists in Africa. The Correspondence Course Unit played a central role during the initial planning and course writing phases of the program.

The postgraduate diploma course in curriculum development was designed to provide basic and systematic training for high level personnel engaged in curriculum development, implementation, and evaluation in selected African countries which are

members of the ACO. The program lasting nine months was conducted in 3 phases comprising the following:

Phase I: Correspondence study at the candidate's home institution lasting 3 months.

Phase II: Residential tuition at the University of Nairobi lasting 3 months.

Phase III: Project Work under supervision at the candidate's home institution lasting 3 months.

For the first academic year, there were 13 candidates from seven countries, namely, Botswana, Ethiopia, Kenya, Lesotho, Sierra Leone, Uganda, and Zambia. On successful completion of the three phases, they were awarded a postgraduate diploma in curriculum development by the University of Nairobi.

The correspondence element in the course was deemed to be crucial in preparing the candidates for the residential phase in order to bring them to the same level of understanding. The correspondence courses covered the necessary background knowledge of basic elements in curriculum development, and also provided the candidates with the necessary materials, reports, articles, and excerpts from books. They were organized into systematic self-learning activities which included self-assessment exercises, written assignments, inquiry, and research project work.

By introducing the correspondence element in the program it was possible to reduce the period for residential tuition so that the candidates were not required to be away from their home-bases for more than 3 months. This was a great advantage.

The success of the program has meant a doubling of the intake for the 1980-1981 academic year and of the number of participating African countries.

VIII. REGIONAL TRAINING PROGRAM

In addition to participating in the training of African curriculum specialists, the Institute of Adult Studies has carried out regional training programs for two other international organizations.

The first is the United Nations Economic Commission for Africa (UNECA) who have used the Institute's facilities and staff for the training of staff development officers in government and parastatal agencies in Africa. During the last three years, the following countries have sent participants to the

course: Ethiopia, Sudan, Kenya, Uganda, Tanzania, Zambia, Malawi, Botswana, Mauritius, Mozambique, Lesotho, Gambia, Sierre Leone, Nigeria, Ghana, and Liberia.

The second is the United Nations International Children's Education Fund (UNICEF) who have joined hands with the Institute of Adult Studies in training extension staff in communications for social development. Two regional training workshops have so far been conducted with the assistance of the Institute's staff and more are planned for the future.

The outcome of this initial cooperation with the two international bodies is that the Institute of Adult Studies has been formally designated as Regional Training Centre for the two bodies over the next three years. This is in recognition of the expertise available in the Institute particularly in the training of trainers which has developed over the years.

IX. CONSULTANCY AND ADVISORY SERVICES

The Correspondence Course Unit has become a focal reference point for a number of newly formed distance teaching institutions in Africa and elsewhere. Requests for services range from short study visits and for sample correspondence materials to training workshops for correspondence course writers, editors, and radio script writers and producers. To date, a variety of consultancy and advisory services have been rendered to the following:

Cooperatives College of Kenya

International Cooperatives Alliance

Lesotho Distance Teaching Centre

Botswana Extension College

International Extension College in Cambridge

Mauritius College of the Air

Government of the Philippines Continuing Education of Teachers Program

Government of Papua New Guinea

Government of Nepal/USAID Project on Radio Education for Teacher Training

The Open University of Sri Lanka

The African Association for Correspondence Education

The African Adult Education Association

X. DOCUMENTATION AND DISSEMINATION SERVICES

The Correspondence Course Unit has accumulated over the years a substantial amount of information, ideas, materials, and sample programs on distance teaching systems from many parts of the world. The Unit has provided consultancy and referral services to a number of organizations and institutions in Africa and elsewhere interested in distance education. Judging from the inquiries received in recent years, there is no doubt that the Correspondence Course Unit will continue to provide these services for a long time to come. Interest in distance teaching in the world is rising, not declining. Therefore, it is imperative that the Correspondence Course Unit make attempts to carefully and systematically document all the information and literature on hand in order to facilitate the retrieval and dissemination of this information to those who request it.

To this end, the Correspondence Course Unit has established a small but functional documentation center with the following objectives:

1. To facilitate the use of available information and records on distance education throughout the world.

2. To arrange information and records so as to identify areas where information is scanty or lacking.

3. To encourage easy flow and exchange of information and materials with other institutions around the world on distance education.

4. To encourage research and evaluative studies of distance teaching systems within Africa and elsewhere.

5. To encourage cooperation between the African Association for Correspondence Education and its members.

Although these documentation and dissemination services can be quite expensive, it is hoped that, in time, their utility will be realized and that external assistance will be forthcoming to expand and extend the services.

The staff of the Institute for Adult Studies have contributed professional papers in national and international journals and other publications in the field of distance

education. A number of research studies have been initiated by the Institute for Adult Studies and their outcomes will add to the information available to the documentation center. Consultancy and advisory services rendered by the staff of the Institute for Adult Studies will continue to generate more information and experiences in the field of distance education as an endeavor towards professionalism. It is in the area of research and publication on distance teaching and adult education that the Institute for Adult Studies would wish to see more rapid growth during the 1980s.

REFERENCES

"A Feasibility Report on the First Degrees by External Studies," by the Open University Team, February 1976.

"Critical Decision Points in Communication Policy and Planning for Education and Development," Stanford University, July 1976, by P.E. Kinyanjui.

"Report of the National Committee on Educational Objectives and Policies," Government Printer, Nairobi, December 1976.

Ministry of Education: Primary Teachers Updating Programme, 1978.

Correspondence Course Unit, Annual Report 1978/79.

Correspondence Course Unit, Annual Report 1979/80.

"The Role of the University of Nairobi in Implementing the President's Statement on Literacy," (mimeo), Institute of Adult Studies, January 1979.

Republic of Kenya: Development Plan 1979-1983, Government Printer, Nairobi, 1979.

"Basic Training Course in Systematic Curriculum Development," Kenya Institute of Education, 1979.

"The Role of Distance Teaching in Formal and Nonformal Education," (mimeo), Institute of Adult Studies, May 1980, by P.E. Kinyanjui.

APPENDIX D

EXPANDED NONFORMAL EDUCATION--AN ANSWER TO KENYA'S EDUCATION DILEMMA

EXPANDED NONFORMAL EDUCATION--AN ANSWER TO KENYA'S EDUCATION DILEMMA

"We are sitting on a time bomb," Dr. Joseph Mungai, Vice Chancellor of the University of Nairobi, told the USAID team conducting an impact evaluation of the 1967-1971 Radio Correspondence Project. "Although 30 percent of our national budget goes to formal education, it is a total failure in terms of our society's basic needs. Sixty percent of our population is under 19. We force 250,000 primary school graduates onto the job market each year without relevant skills, while only 50,000 jobs a year are being created. The formal education system is not educating them and the economic sector cannot absorb them."

Professor Mungai described Kenya's current educational dilemma. Formal schooling met critical needs earlier in the country's development, but it has led to "disastrous problems." The aspirations of 70 percent of the population within the educational context cannot be satisfied. The Vice Chancellor said, by way of example, "It is not helping the majority of Kenyans to earn a living. It doesn't help mothers learn to properly feed babies or farmers to keep from losing one third of their grain to insects and disease by storing it six inches off the ground. Youths find it impossible to visualize their future. They are not equipped to find a useful role in society or to attain any quality of life. Most conclude the system is either incompetent or corrupt."

The Vice Chancellor stated his belief that USAID has "given us aid toward the long-term answer to Kenya's educational dilemma by providing the capability to expand opportunities through nonformal education." He said that in the past stress has been upon formal schooling but "now the potential for nonformal methods must be given prominence."

"The value and potential for distance teaching has been demonstrated through the AID project; the experiment has matured and has proven its value for the long term," he said.

"Each year 70 percent of the graduates of primary and secondary schools and the University of Nairobi are graduating or dropping out and coming into the job market with dim employment prospects. Industry estimates that it costs $135,000 to create one job," said the Vice Chancellor.

The USAID team found there is great pressure throughout the country, particularly among teachers, for the University of Nairobi to offer an external degree program. Dr. Mungai is convinced the Government of Kenya and the Parliament have no choice but to approve a greatly expanded program of adult

education at the University which would offer not only an external degree, but provide correspondence course instruction at all levels--preparation for the Kenya Junior Secondary Education certificate and for the Kenya equivalent of junior and senior high school work. He would establish in effect a new College of Adult Studies on the present Kikuyu campus of the Institute of Adult Studies, about 10 miles from Nairobi.

Professor Mungai believes the external degree program would need to be organized to accommodate an initial enrollment of 200,000 candidates to satisfy at least part of the enormous pent-up demand. A recent feasibility study estimated first year start-up costs at 5 million shillings (US$660,000). He feels the external degree program that would utilize the radio correspondence methodology is preferable to a second university, which would cost 20 million Kenya pounds (US$53 million) and could enroll only 500 students a year. Present University of Nairobi enrollment is roughly 8,000.

"The time has come to shift the burden of financing higher education from the government to the individual," the Vice Chancellor explained. "We should start by having students pay their board and lodging. If this were done, the University could treble its enrollment. As it is, the university has to dig into other resources to cover rising costs of student support." The Vice Chancellor said that his views may be idealistic, but that so far no one has produced a better answer to Kenya's educational dilemma.

A University of Nairobi external degree program through correspondence courses and radio instruction was included in the present 1979-1983 development plan, but limited government resources so far have postponed its implementation. The feasibility study assumed that existing University faculty would be used, adding faculty members to colleges where called for. The Vice Chancellor now believes that the demand for external degree education has grown so rapidly that a completely new faculty devoted only to adult education will be required. As it is converted into college status, equivalent to the new College of Agriculture and Veterinary Sciences planned at Kabete, the Institute of Adult Studies at Kikuyu would require a complete new printing facility, new radio studio and audio-taping equipment, and a new building.

Peter Kinyanjui, the Institute Director and former Director of the Correspondence Course Unit, said the feasibility study projects an initial full-time faculty of 20 with 30 support and administrative staff. A total of four million shillings ($10.7 million) would be needed for the initial five-year period of operation.

Kinyanjui believes the Vice Chancellor intends to make a strong case that substantial funding for the University's greatly expanded program of adult studies be earmarked in the 1984-1988 development plan. The recently revived University Grants Commission should prove of considerable value in supporting the Vice Chancellor in this endeavor.

Professor Mungai is personally committed to the expansion of nonformal educational opportunities in Kenya. He sees the Radio Correspondence Unit as the foundation from which a comprehensive distance teaching strategy can be launched and is optimistic about its ultimate chances for acceptance and success. In his view distance teaching methods should be used to educate primary school leavers and out-of-school youth as well as offering an alternative route to university education.

The Vice Chancellor in 1976 launched a pilot project, "Muguga Wa Getonye," to ascertain the feasibility of providing further education to young adolescents who completed the CPE (primary-school leaving examination) and could not find places in formal secondary schools. This pilot project is seen as the secondary school component of what he is attempting to expand into a comprehensive, nonformal alternative education facility to serve all ages, preschool through adult.

In an abstract sense, Professor Mungai's assessment of Kenya's need to increase its nonformal education activities and his views of the potential of the Radio Correspondence Unit and of distance teaching methods for balancing regional and social inequities are well founded. A program of this kind could contribute significantly to solving the Kenyan dilemma--or "time bomb"--that he described. However, the political and social realities of Kenya may present insuperable obstacles. Public pressure for a second university, a "real" and not "invisible" one, together with the widely-held reverence for the deeply entrenched formal school system tied to certificates which are, in turn, tied to promotion and increased earning capacity, may be forces that are impossible to overcome.

Kenya already is investing upwards of 40 percent of its budget in education, pursuing a national policy for universal free basic education, universal adult literacy by 1983, and an extension of primary education to nine years. Since human and financial resources are limited, there must be some hard decisions on priorities. Objectively, distance teaching and nonformal education strategies may make the most sense in terms of cost-effectiveness and perhaps relevant education. But political pressures based upon subjective perceptions of the people may thwart the efforts of Professor Mungai and others to move Kenya toward increased emphasis upon nonformal education. The formal system will likely continue competing successfully for the lion's share of appropriations. Secondly, efforts to

engage people in education pursuits not aimed at their ultimate entry into the formal system at some point may meet with little acceptance since people at the subsistence level will find it difficult to justify the investment in time, effort, and money.

Professor Mungai's optimistic and laudable assessment is that "All that is needed are a few people of courage to show that it can be done. Then the government will support it as they did the village polytechnics when they were started by the National Christian Council." Our assessment is that acceptance of this approach is not likely to come quickly if at all. We hope we are wrong.

APPENDIX E

RED AND WHITE, IN SPLASHES

RED AND WHITE, IN SPLASHES

The students range from grey-haired to plump-cheeked, but the great majority are in their middle years, roughly 25 to 45 years old. Most are women. They are separated into five classes generally by age groups, but apparently also to some degree by levels of proficiency.

The subject matter for the most part deals with basic life situations and the immediate educational objective is literacy. The classes are part of the Government's Adult Literacy Campaign.

The intensity of teachers and students alike as they go through written and oral exercises testifies to their shared sense of purpose and commitment to the learning experience. But something else speaks as eloquently of their perception of what is taking place and their involvement in it: more than half of these adult "students" are wearing at least one garment--skirt or blouse--resembling a uniform. The colors are red and white.

While like all generalizations it may be said to have significant exceptions, it can be asserted that in Kenya, school uniforms are worn as a matter of pride and distinction. A person's badge of identity as a student is, in effect, established by the wearing of a uniform. It is not incongruous, therefore, for a mother of three, four, perhaps five children to be buying the cloth and sewing a shirt or blouse to match some commonly agreed upon pattern which will be the uniform of her adult literacy class. She is a student, perhaps for the first time in her life.

As Tabitha Opere, an Assistant Adult Education Officer in Kisumu and mother of three in-school children herself, explains: "In the old, pre-Independence days, many girls did not have the opportunity to go to school. There weren't as many schools then. It was the sons in the family who went to schools first if places were available. Today, these girls--now women in their "maturity--want their chance for an education."

The considerable majority of adults participating in literacy classes in Kenya this year are women. It appears likely they will continue to constitute the greater proportion of adult literacy students. They want their chance, uniforms and all, to go to school.

While alone a poignant and compelling justification for Kenya's adult literacy campaign, the women's alacrity to form or join literacy learning groups poses something of a problem

for the campaign's organizers. Men are staying away from the classes. Explanations differ, ranging from the problem of men being more involved than women in regular jobs and lacking the energy to attend classes after the work day, to obvious reference to the fact that more men than women have had the opportunity to learn to read and write.

Yet Mrs. Opere's explanation, echoed frequently by her colleagues in other parts of the country, suggests a more traditional and, therefore, perhaps more intractable problem: "If a man goes to a literacy class with his wife, and she answers a question correctly when he has answered wrongly, he isn't going to like this. He won't come back to the class."

Whatever the reasons may be that men are not joining adult literacy classes in equal numbers with women right now, it does not presage well for their participation in the future. If literacy classes continue to be made up predominantly of women, they are likely to be perceived de facto as women's classes. Men will be reluctant to join a women's activity.

There are other difficulties in organizing adult literacy classes. Many, if not most, of the literacy teachers are young and fresh out of secondary school. Their students will be older, often older than their own parents. Especially in traditional, rural communities education is passed from the older to the younger. A reversal in that process for the purpose of adult literacy education may not occur easily.

Most of the literacy teachers are male. Again, especially in traditional communities and particularly those in the Coastal Province where Islamic practices tend to segregate the sexes, male teachers of classes made up largely of adult women may be accepted only grudgingly.

The physical location of an adult literacy class can be problematical. If classes are held in a school, some adults may feel this is demeaning. If held in a local church or mosque, religious sensitivities may be aroused. If classes are held after nightfall, as many will need to be, some form of lighting must be available. Electricity is still largely an urban and periurban "luxury."

If the difficulties of organizing and running Kenya's Adult Literacy Campaign seem intimidating to an observer from abroad, they hardly seem to have the same effect on the Kenyans who are dealing with these problems on a day-to-day basis. From provincial officer to teacher, the common attitude is, "Yes, we have these problems, but we are going to find a way of solving them." Their energy, competence, and sheer determination--although sometimes in unequal parts--make it hard to believe otherwise.

One final note on the adult literacy group visited in Kisumu: one of the classes was made up entirely of young girls. These were children, it was explained, who had been sent to the city to work as domestic servants. These classes were to be their introduction to education.

APPENDIX F

KENYA'S NEW ADULT LITERACY PROGRAM

KENYA'S NEW ADULT LITERACY PROGRAM

"The President's directive on universal adult literacy caught us, even our Vice President, the Minister of Finance, completely by surprise," said David Macharia, Director of Adult Education in the Ministry of Culture and Social Services. Macharia, former Director of the University of Nairobi's Institute of Adult Studies, is the principal official responsible for implementation of Kenya's new national literacy program.

"It was a silent coup, a major departure from past policy and clearly designed to redirect more to the poor and rural people, the dormant, neglected districts," Mr. Macharia explained.

In December 1978, Kenya President Daniel T. arap Moi announced a five-year crash program for universal literacy with a target of teaching each of Kenya's estimated 7 million illiterate citizens--half of the population!--to read and write in both his or her own mother language and in Kiswahili, the national language, by 1983. No small feat since Kenya has 40 different languages.

The Kenya Government consulted a number of non-government organizations on the means to implement the Presidential directive and considered using the National Christian Council of Kenya as the major institution to carry out the program. Eventually, it was decided that the responsibility would be assigned to the Ministry of Culture and Social Services.

Some officials argued that the Ministry should train its own professionals to direct and administer the adult literacy program. But Mr. Macharia and others persuaded the Government that the University's Institute of Adult Studies possessed the capability to get the program into high gear immediately by utilizing the training facilities of the adult Studies Centre and mobilizing the Correspondence Course Unit, which possessed the experience and staff to carry out a national program of this kind.

A detailed literacy scheme was drawn up by David Macharia over a four-month period and was accepted. It called for 172 division-level officers to be recruited, principally from the ranks of experienced primary school headmasters. They would serve under provincial and district adult education officers. Each of the 172 division-level adult education officers would be responsible for supervising from 6 to 20 full-time literacy teachers and an average of from 25 to 30 part-time teachers. A total of 3,000 full-time and 5,000 part-time literacy teachers are being recruited to conduct the national literacy program that will extend throughout all of Kenya's 182 divisions. An

estimated 10,000 voluntary literacy teachers are already active, many of whom are associated with church and missionary activities. In one district alone there are 168 "self-help" literacy teachers. The Ministry feels that lest these voluntary teachers become alienated they should receive subsidies and assistance from the district-level adult education officers.

The 172 division-level adult education officers are being trained in a two-month "Foundations" course at the Kikuyu campus of the Institute of Adult Studies. Four such classes are scheduled, each accommodating about 40 to 45. The 3,000 full-time and 5,000 part-time literacy teachers, the latter to be drawn chiefly from the ranks of primary school teachers desiring to supplement their incomes, will be trained through the established three-way distance teaching method by CCU faculty members. The Institute of Adult Studies staff trained Ministry specialists to write courses, supplemented by radio teaching specialists from the Voice of Kenya and university faculty from other colleges. CCU will mail lessons and guidelines to individual literacy teachers with radio instruction to supplement the correspondence course work. Division-level officers will periodically offer short in-service training sessions for the new adult education teachers.

Since wananchi (citizens) are to be taught to read in their mother tongue first, it was necessary to write adult literacy materials for the many different languages of Kenya. The basic materials consist of two books. The first book teaches decoding skills in the mother tongue. The second has longer reading passages and uses the mother tongue to introduce the learner to reading in Kiswahili. In addition to teaching reading and writing, the books contain information that is useful and interesting for adults.

The Department of Adult Education is responsible for the development of learner material. Its literacy program has grown 9.5 times during the past year. David Macharia estimates that by 1981 more than one million Kenyans, mostly rural women, will be enrolled in literacy classes. Production and printing of learner literacy materials has swung into high gear, with 17 titles now in use and 10 more in production.

Urban classes are given in Kiswahili while rural areas begin instruction in the mother tongue of the particular region and then switch to Kiswahili when sufficient competence is attained in the local language.

The 60-day course at Kikuyu for the 172 division-level adult education officers covers the scope and methodology of adult education, psychology of adult learning, and guidance and counseling. Several days are devoted entirely to the role of

correspondence course instruction in literacy education. Extensive fieldwork and practice are included. Most of the division-level officers are at the "O" or "A" level (junior and senior high school). Nearly all have used either government-funded or private correspondence course work in furthering their careers.

Discussions with one group of 39 division-level adult education officers undergoing training at Kikuyu in November 1980 revealed several constraints they foresee to the successful execution of the new literacy program. One serious problem is lack of travel funds to enable them to effectively supervise the 20 to 50 literacy teachers for whom they will be responsible. Provincial and district adult education officials are given travel allowances, but no travel funds are budgeted for division-level officers.

Another difficulty is that men are reluctant to enroll in the same literacy classes with women and children because as one teacher put it, "they are ashamed to reveal their ignorance." Youngsters attending literacy classes often are disruptive to the more serious-minded grown-ups. Yet, there will not be sufficient teachers to offer separate classes for men, women, and children.

There is also fear that the 10,000 or more volunteer literacy teachers will resent the introduction of new classes run by full-time and part-time government-paid teachers and consequently will drop their work, which generally has been recognized as quite effective.

In Kenya as a whole there are twice as many illiterate females as males. In Coastal and Eastern Provinces, there are five times as many illiterate females. One curious paradox is that although the overwhelming majority of those to be enrolled in literacy classes are likely to be women, no women could be found among the 172 division-level adult education specialists. Several reasons were given for this. Even though the present national ratio of headmasters to headmistresses is estimated to be something like 10 or 15 to one, few headmistresses have served in this capacity for the minimum five years required to qualify for the new division-level adult education positions. Women usually have family ties near their own schools and prefer not to apply for positions that would require that they be posted anywhere in Kenya. It also has been difficult to accelerate the appointment of women as headmistresses because, once appointed, it is hard to replace men as headmasters.

Although the newly-recruited division adult education officers are enthusiastic about the challenge of their work, most concede the 1983 target for universal literacy is unrealistic. Classrooms, instructional equipment, course

materials, and numbers of teachers will not be sufficient to meet the enormous need. To become effective, young teachers will need to gain experience in handling adults in the literacy courses.

The document, "Proposal for Implementation of a National Literacy Program in Kenya," by S.J. Rooth points out that one of the main reasons for previous lack of success of literacy programs is that "adult education has been largely a pale imitation of the formal system to date. One is compelled to conclude that the solution to adult literacy cannot lie in any expansion of the existing formal system of education." In teaching adults, the teaching factor is all important. There must be freedom and encouragement to experiment with time, place, content, topics, and methodology to find the best ways to work with any given group of adults. There will be regional differences, attitudes, and cultural traits that must be considered in planning a successful teaching strategy.

Ben Karuga Gitau, Director of CCU, succinctly stated an underlying dilemma of the literacy program: "Even with the political legitimacy of a Presidential directive, how can we overcome the sensitivity of men who desire literacy, but don't want to appear stupid and be laughed at in literacy classes? Literacy is essential to Kenya's development and industrialization, so we must find a practical way for men to overcome their hesitancy to join literacy classes."

From discussion with adult education officers in the field the team received the following comments and suggestions.

1. We tried to recruit the best-qualified available local persons for teachers. Some of the things taken into consideration are the age and sex of the teacher. In some places women are not allowed to go to classes with men teachers, and many men will not learn from a woman. Men have a tendency to avoid any activity that women undertake. Age is important, too. The teacher must be respected and in many groups it is age that gives you respect. That is the main reason that part-time primary teachers are very successful. It is not because they know how to teach, although that helps, but because they already have earned the respect of the community and are recognized as teachers. Their age is nearer to that of the adult students. It is their status more than teaching proficiency that makes them successful.

2. We have had to employ some teachers who have only completed the CPE (primary school leaving examination). It may be very difficult for the CCU to write the materials to cater to such a wide range of teachers, some with barely a primary education and others who have finished the "O"-level (two years) of secondary and all in between.

3. The two-week training course:

   a. Was very practical, since most of the teachers had already been in this field.

   b. Was too short to do a really adequate job.

   c. Contained good content--basic classroom management, number work, adult psychology, reading and writing methods.

   d. Employed good teaching strategies, based on problem-solving approaches, lots of participant demonstrations, and use of learner materials.

4. Why do Moslem women attend literacy classes when there will be little opportunity for economic gain? Answer: Just to learn to read and write.

5. Literacy teachers work for the Public Service Commission. Salaries are geared to academic achievement. If a literacy teacher or any other civil service employee attains a higher academic qualification, they receive a promotion.

6. We lose many teachers each year who are subsequently admitted to teacher training colleges and then receive two years of free education.

Kenya's 17 national teacher training colleges, in response to the Presidential directive, are upgrading their course work in the field of adult education, especially in areas such as the psychology of adult learning and teaching methodology for literacy education.

APPENDIX G

SOCIOLOGICAL ANALYSIS

by Catherine Ellen Robins,

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SOCIOLOGICAL ANALYSIS

I. EDUCATION AS A REFLECTION OF SOCIETY

Kenya is a developing country whose relatively high rate of economic growth is held in check by the most rapid increase in population in the world. While impressive efforts are being made to provide food and shelter, medical care, schooling, and useful employment for the entire population, these efforts co-exist with all of the contradictions of underdevelopment--skewed distribution of resources, "overdevelopment" of sectors of the economy linked to external powers, pervasive foreign social and cultural influence, and juxtaposition of extreme wealth and extreme poverty. Any effort to assess the long-range impact of an intervention in the educational system, such as the introduction of correspondence education, must take account of the paradoxes which surround the social and political structure in which the educational system is located. It is necessary not only to look within such a project, to examine it in terms of its own goals, but also to view it within the context of the total society.

Unequal access to and distribution of resources is a fundamental feature of Kenyan society which has roots in the colonial history of the country. Like Zimbabwe and South Africa, colonial Kenya was a settler-dominated society in which an administrative structure was developed to ensure the tiny, largely English minority access to facilities in urban housing, medicine, education, and security which would, with the growth of the colony, match or exceed in quality those which they would have enjoyed at home. The Asian minority--migrants from the Indian subcontinent, and essential to the economic life through their roles as intermediaries in small-scale trade and later in import and export business--were provided for by the colonial authorities on a lower level than the white population, but one which assumed their need for basic facilities. Over time, the emergence of particularly strong communal institutions enabled these groups to improve their standard of medical and educational care beyond that provided by the colonial government. The largest part of the population, the indigenous Africans, were provided with the minimum services necessary to ensure their continued ability to supply unskilled labor, particularly in agriculture, and to occupy the lowest rung of the colonial bureaucracy as messengers and clerks. Over time, efforts of missionaries and others led to the creation of small nuclei of more adequate educational and medical facilities for the African population, usually centered around mission stations, but vast numbers of the African population were only superficially affected by the "positive" impact of colonization. Even the creation of a colonial

economy, more far-reaching than the social or political changes brought about by colonization, bypassed large areas of the country, particularly those unsuitable for European settlement or cash cropping--the dry areas and the Coastal strip. The vast arid north and northeast of the country and parts of the pastoral areas to the south were practically untouched by colonialism.

The impact of these developments was to create an institutional structure that the time of Independence in 1963 was characterized by extreme regional inequalities as well as by lingering racially based conditions of unequal access to basic resources, in social services as well as in land and access to productive capital. Urban areas retained racially determined divisions among low density, originally European housing areas, middle density Asian-occupied areas, and the poorly planned, overcrowded African settlements, which in many cases lacked basic sanitation, water supplies, paved roads, shops, clinics or schools. As racial barriers were removed immediately after Independence, these divisions were maintained in the form of a kind of de facto segregation through which a handful of wealthy Africans gained access to formerly European residential areas. Others, of middle income levels, moved into middle-density former Asian areas.

Culturally, Kenya displays the extreme diversity which has come to be seen as characteristic of most sub-Saharan Africa. Patterns of regional or "tribal" loyalty and identification were intensified by the colonial experience. The extreme measures of "pacification" taken almost everywhere in the colony tended to create local traditions of resistance even in the stateless or decentralized societies which predominate throughout Kenya.

Outside the major towns, several economic processes were identifiable in the first 10 years after Independence. The groundwork had been laid for a move toward private individual control of land, through registration of title deeds, as early as the 1950s. During this period, the British administration took advantage of the enhanced degree of control made possible by the Emergency (invoked to provide the colonial administration with the legal apparatus to combat the "Mau Mau" insurgency) to begin a program of land registration.

This process of individual acquisition was greatly accelerated after 1963 when the "Independence bargain" provided for British subsidies to allow the new Kenya Government to purchase the farms of those settlers who were unwilling to remain in Kenya under largely African government. In the negotiations that surrounded this decision, the possibility of free acquisition of land by the landless was rejected and the principle of individual use and ownership through "willing

buyer, willing seller" transactions was affirmed. These measures made possible the emergence of a small landed class of African largeholders and strengthened the position of the enormous group of smallholders who still form the backbone of Kenyan agriculture. What is significant for an understanding of the present patterns of regional differentiation is that these developments were restricted largely to the former European farming areas. In the rest of the country, other forms of change were taking place. In areas suitable for cash crops, the removal of restrictions on African economic activities imposed under colonialism to ensure a constant supply of migrant agricultural labor, stimulated local economies and cash cropping became a more important source of income.

The long-range effects of these changes, however, depended on the demographic balance of an area and the impact of the introduction of new crops. These varied enormously, as evidenced in studies of hybrid coffee, maize, and sugarcane production. The wealthier smallholders benefited more than the poorest. Through processes familiar throughout the world, intensive cash crop cultivation tended to widen the gap between richer and poorer and to skew the distribution of privately owned land. In some of the most densely populated portions of the country, even the increased yields possible with improved food crops could not keep pace with population growth. The resulting economic pattern has been one of "minifundia," or tiny fragmented land holdings, together with extensive labor migration of men, and increasingly, of women as well. In other areas, access to cash income has had a major positive impact on family living standards, although there is recent evidence of an alarming decline in infant nutrition in precisely those areas where cash crops predominate.[1]

Finally, in areas occupied by pastoral people, the economic and social stagnation characteristic of the colonial period has not been substantially altered since Independence. Here, the pattern of extreme dependence on the vagaries of a harsh climate remains the most important economic variable. Remaining still is the economic, cultural, and social marginality to which these regions, including most of the north, northeast, Eastern Province, and southern part of the country, have been relegated under colonialism.

These varied regional economic patterns, as well as the sharp urban differentiation, affected all aspects of the life of the country: its institutional development, cultural

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[1]"Child Nutrition in Rural Kenya" (UNICEF 1977).

change, the new social formations which emerged after Independence, and the distribution and character of social services, including medical care and education. Within the framework of a broad commitment to greater equality in the distribution of scarce resources, structural features persisted which shaped a pattern of development in which inequalities were difficult to eliminate. Further, the belief was never abandoned that such inequalities were necessary to provide incentives to those more willing or better able to go ahead.[2] Thus, the ideological commitment to equality required energetic, specific action to become a reality.

Establishment of native reserves, or tribal trust lands, necessary for control of the population and later to gain access to African labor, was based on existing ethnic divisions or a European reconstruction of these. The local native administration followed these lines, assuming the existence of a network of traditional chiefs as the effective administrative corps. Finally, the creation of cultural institutions, notably through the activities of missionaries in the field, was mediated on ethnic terms. De facto parcelling out of territory among mission bodies along tribal lines created divisions in which ethnicity and denomination coincided. Translation of the Bible, often the only book available in a local language, also served to reinforce parochial loyalties. In some cases, new tribal or subtribal identities were created where none apparently had existed. The mission monopoly of primary schooling and their later dominance over teacher training, encouraged by a colonial administration which sought to govern as cheaply as possible, brought into the arena of formal education the divisions already created among adherents or "readers."

Another pervasive effect of colonialism was to reinforce in much of the population a belief in the superiority of essentially British and upperclass institutions. These included a highly formalized system of education geared to training for white collar employment, characterized by elitism and a rigid adherence to syllabus and firm discipline. In remote areas these principles were problably more often honored in the breach, but the "national" education institutions, created by the missions, such as the Alliance high schools, embodied these ideals. At the same time, the existence of parallel institutions in urban areas enabled Kenyans to gain knowledge at first hand of European schools, especially in Nairobi and in the Rift Valley. These boarding schools, now nationalized, possess facilities matched by few schools anywhere in the world. They

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[2]See Development Plan 1974-1978, Part I, Republic of Kenya.

serve as a reminder of the affluence and power of the white community which reinforced the belief in their cultural superiority.

This notion of the superiority of white institutions was sometimes challenged by the strength of cultural loyalties, as in the conflict over the circumcision of women among the Kikuyu and the move toward independent Kikuyu-run schools. But it should be remembered that this challenge to the mission and administrative establishment was matched by a "loyalist" response having its base among adherents to the Protestant missions. This tension among elements of the largest ethnic group in Kenya reemerged periodically, culminating finally in the events of the Emergency, which some historians of Kenya have described as a "Kikuyu civil war."

Seventy years of colonial rule failed to create a network of viable national institutions. At Independence in 1963, Kenya remained an exporter of raw materials, mainly agricultural, whose economy was linked to the needs of Europe. The markets for imported luxury manufactured goods remained, and industrialization aimed at "import substitution" did little to alter this pattern of dependence. The increasing presence of multinational investments succeeded in diversifying trading relations without providing a basis for a truly autonomous industrial sector. Regional inequalities remained. Those between town and rural areas intensified. The society was culturally fragmented, characterized both by heightened ethnic awareness and disunity within some ethnic groups which nevertheless did not prompt moves toward a stronger national consciousness. These tensions were intensified by the growing perception that some groups were enjoying a disproportionate share of the fruits of independence in the form of land, schools, health facilities, roads, and development expenditures in general. Indigenous cultural initiatives were inhibited by the pervasive ideology of the superiority of foreign institutions and behavior patterns. Colonialism provided few avenues for meaningful interaction among racial groupings, while ethnic groups in the larger society, whose separation was of importance in ensuring effective control of the subject population, has little experience of contact. It was only in the area of political institutions that foundations were created by the colonial power which provided a basis for future development, fostering Kenya's deserved reputation for political stability.

The problems remaining at Independence were immense. There was a rapidly growing urban population, the product of uncontrolled migration from rural areas. There were overwhelming demands both for land and for education--one seen as the most reliable security in old age and the other as the best channel to rapid upward social mobility. Neither demand could easily be met from the limited resources available to the new government.

II. EDUCATION IN POST-INDEPENDENCE KENYA

The system of education inherited by Kenya at Independence was based on British institutions and values. The higher levels of the system were formalized, elitist, and suited to prepare for white collar occupations. The base, the mass of African primary schools run by some 20,000 teachers, often lacked the most basic equipment. More than half of all teachers had completed only primary schooling and two years of teacher training; almost one-third had no professional training whatever.[3] While racial restrictions of the colonial period were quickly removed, the system continued to embody many regional and racial inequalities. Events of the post-Independence period are largely a record of efforts to achieve development and equity, the stated objectives of the new government, without sacrificing the incentives believed necessary to spur individual enterprise. Within a framework of scarce resources and compelling demands from most sectors, the issues of quantity versus quality (defined by British colonial values) overshadowed the question of the appropriateness of educational programs. Little room remained for consideration of radical alternatives to the existing structures. Without structural change, however, the ideological basis of the educational system could not easily be changed.

The first national Development Plan, formulated immediately after Independence, reflected these dilemmas in three major educational objectives:

-- "To provide universal education through primary school;

-- To ensure enough places at the secondary and higher levels to educate those with recognized abilities; and

-- To organize the educational system to meet the manpower needs of the country."[4]

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[3]See "The development of the Teaching Profession," in Social Perspectives, Vol. 2, No. 6, November 1977, Table 1.3, p.8; and P. Kinyanjui, "Education by Correspondence: The Kenyan Experience, in David Court and Dharam Ghai, eds., Education, Society and Development: New Perspectives from Kenya (Oxford 1977).

[4]Development Plan, 1964-1970, p. 101 (Republic of Kenya 1964).

Both emphases are explicit--the need for greater equity and access to education and the need to upgrade manpower. In the six years which followed, the focus on creating a pool of skilled manpower as a means to localization of Africanization of the administration and the economy predominated. Specific provisions of the revised Plan of 1966-1970, abolishing fees at the highest levels of the secondary system and doubling secondary enrollments, made this clear. The Plan emphasized that "the contribution of education to the development of skilled and educated manpower is particularly critical in Kenya at this time."[5]

The Plan also acknowledged the importance of recommendations of the Kenya Education Commission, chaired by Professor Simeon Ominde. The Commission argued that quality and quantity should not be seen as irreconcilable and that primary education would in the future constitute a necessary minimal level of education for the majority of the population. It stressed the need for a program to improve the quality of primary teaching, an emphasis which led to the creation, after 1967, of the radio correspondence unit within the University. While predicting that an ever-increasing proportion of the primary school age population would be attending school, it failed to anticipate the magnitude of the dramatic rise in primary enrollment which accompanied government measures to ease access after 1970. Emphasis on the upgrading of manpower through the expansion of the secondary and tertiary levels of the educational system and the elimination of racial barriers continued to take precedence over the less politically pressing concerns of upgrading and expanding the system of primary education. The statistics reveal an increasingly familiar picture of growing primary enrollments, but of slow progress in eliminating untrained teachers. Optimistic projections about teacher upgrading made in the 1970-1974 Development Plan contrast sharply with what resulted, as Tables G-1 and G-2 show.

The failure of planners to appreciate the extent of the problem is most obvious when one compares statistics showing the growth of the teaching profession during this period with government projections, as shown in Table G-3 below. This massive expansion of the primary education system was neither anticipated nor planned for. Government estimates for growth in recurrent costs averaged a 52 percent increase over the four years of the Plan with fees expected to rise by 34 percent.[6] The number of teachers actually doubled during the same period.

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[5]Development Plan, 1966-1970, p.305 (Republic of Kenya 1966).

[6]Development Plan 1970-1974, p. 456.

Table G-1. Supply of Primary School Teachers as Projected in the 1970-1974 Development Plan (000)[1]

Supply of Teachers	1968[2]	1969	1970	1971	1972	1973	1974
Qualified	27.4 (73%)	29.9 (79%)	32.4 (82%)	35.2 (85%)	38.1 (88%)	41.4 (91%)	44.5 (97%)
Untrained	10.0 (27%)	7.8 (21%)	7.2 (18%)	6.1 (15%)	5.0 (12%)	3.9 (9%)	1.3 (3%)
Total	37.4	37.7	39.6	41.3	43.1	45.3	45.8

[1]All percentages have been rounded to the nearest whole number.
[2]The figures for 1968 only are actual figures.

Source: Adapted from "Development Plan for the Period 1970-1974," Table 17.4, p. 455.

Table G-2. Profile of the Teaching Profession in Primary Schools (by percentage)

Supply of Teachers	1964	1966	1970	1973	1976
Qualified	70	70	79	78	63
Untrained	30	30	21	22	37

Source: "The Development of the Teaching Profession," Social Perspectives. Adapted from Vol. 2, No. 1 (Nov. 1977), Table 1.3, p. 8.

quarter were primary schools; by another measure,[9] they acounted for over 30 percent of expenditures on self-help. While varying interpretations are given for the causes and motivations of this spontaneous self-help activity in Kenya, its roots unquestionably lie in the central government's inability to meet urgent local demands for basic needs such as clean water, health care, and education. The government found it difficult to keep pace with or to direct Harambee development, a problem with major implications for Harambee initiatives in the field of education at all levels.

The upgrading program for primary teachers was one response to the dilemma of quality or quantity at a time of scarce resources. Despite an impressive record of training over 4,000 teachers over a short period, the government failed to contend with the growth of the primary school population. By the early 1970s, a new element entered the situation. The overall growth of the system at the secondary level had created a pool of unemployed Form IV leavers, many holding the EACE, seeking employment as untrained teachers or admission to teacher training colleges. The virtual absence of vocational training at the secondary level meant these job seekers were equipped only for teaching or office work. As more applicants became available, qualifications for admission to teacher training colleges rose; by 1975 a Division II pass in the EACE was a normal prerequisite for entry except in the most underdeveloped parts of the country. Under extreme financial pressure, the Ministry of Education in 1974 abandoned the policy of automatic promotions for teachers who improved their academic qualifications, while continuing, until 1978, to encourage in-service training.

The Development Plan for 1974-1978 was the first to deal at length with the fundamental issue of the relationship of education to social change. The planners noted that Independence had led to impressive progress in localizing the economy while at the same time intensifying the contradictions already inherent in the society at Independence--between rural and urban areas and between "wage earners" and the owners of productive resources. They stressed the need to create opportunities for full participation in the economy, although noting that full equality could never be expected while differences in "skill, effort and initiative" existed. They observed that the "structure and content of the formal educational" system had reinforced a pattern of orientation to urban, formal sector employment and disdain of rural life. These judgments undoubtedly were influenced by the conclusions of an ILO mission

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[9]Mbithi and Rasmussen, p. 39.

which assessed the employment situation.[10] The ILO report argued for the need to remove constraints on "informal sector" economic activities and to encourage participation in this level of the economy as a means of creating employment and reducing inequalities, both in urban and rural areas. In line with this, the writers of the Development Plan described the vicious circle that results from school leavers "with higher pro forma qualifications chasing relatively fewer jobs in one small part of the economy."[11]

While the Plan called for "fundamental reform," few policy changes resulted. It emphasized the potential importance of "second chance" institutions like the Harambee Institutes of Technology which operated outside the formal system. They were to be encouraged in the hope that a "loosely structured network of institutions" would be generated that would "be able to provide more specific forms of training and skill development within a setting more responsive to local needs." The ultimate goal was generation of employment "in a flexible and efficient manner."[12] The Harambee Institutes, growing out of a country-wide movement from 1970 onward to create regional schools for tertiary-level training in vocational subjects, later assumed a central position among "conspicuous" or high-level, high-cost self-help projects. Their performance has been disappointing. Most did not become operative until the late 1970s after absorbing millions of shillings (hundred of thousands of dollars) in donations.[13] Other institutions, like the village polytechnics, also organized on a Harambee basis, addressed themselves more effectively to the problem of providing training relevant to local-level rural employment, but they are accessible to only a tiny fraction of the school-leaving population.[14]

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[10] ILO, Employment, Incomes, and Equality: A Strategy for Increasing Productive Employment in Kenya (Geneva 1973).

[11] Development Plan, p. 405.

[12] Development Plan, p. 406.

[13] See E.M. Godfrey and G.-C.M. Mutiso, "The Political Economy of Self-Help: Kenya's Harambee Institutes of Technology," in Court and Ghai.

[14] See D. Court, "Dilemmas of Development: The Village Poly technic Movement as a Shadow System of Education in Kenya," in Court and Ghai.

More significant was the Plan's commitment to more funding for primary education in belated recognition of swollen enrollments. The government no longer accepted any responsibility for physical plants of primary schools; they would be provided locally, presumably on a self-help basis. The government acknowledged that schools had to continue relying on untrained teachers in order to meet the stated objectye of "not refusing a school place to a Standard I applicant."[15] The Plan produced more realistic projections of the proportions of untrained teachers required for the Plan period. The 1974 policy of promotion on merit was reaffirmed. Faced with paying for a continually growing system while keeping education expenditures within acceptable limits, the Government opted for policies of maximal reliance on local resources and decreasing intervention in costly areas such as upgrading and promotion. Limits in the number of teachers were to be achieved by increasing class size toward a norm of 40.[16] Teacher training college enrollments were expected to increase somewhat. A policy of allocating teachers to primary standards on the basis of qualifications was expected to further alleviate pressure on the government to increase the teaching force.[17] The naming in the same Plan of a National Commission on Education to look into the entire structure of education seemed to be additional evidence of the government's commitment to structural reform.

An immediate and unanticipated consequence of measures intended to open up access to primary education was to create, in many areas, a cycle of rising expectations followed by disillusionment with the system. Enrollments rose dramatically after 1974 in response to the announced abolition of fees in the first four grades. Finding themselves overburdened, schools expanded beyond the capacity of their buildings with classes often meeting out of doors and in inadequate buildings. School and building funds were quickly introduced through indirect taxes on parents to replace government support. The "voluntary" contributions often exceeded the nominal fee of 60 shillings (about $8.00) a year and resulted in forcing many children out of the system. This pattern of increased enrollment followed by a temporary decline can be clearly seen in both Nyanza and Eastern Provinces in the years between 1974

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[15]Development Plan, 1974-1978, p. 413.

[16]Development Plan, p. 413.

[17]Development Plan, p. 415.

and 1976.[18] One student of educational policy who interviewed teachers, parents, and pupils in the late 1970s found "much bitterness among members of the lower social classes who castigated school teachers for the high cost of learning, accusing them of attempting to defeat government compensatory policies by trying to reinstitute school fees when the government had abolished them in the first place."[19] There were frequent complaints of coercion in the collection of such funds, but parents appeared to accept them as an inevitable cost of children's schooling.

Observers have pointed to this chain of events as an example of a policy initiative taken without adequate concern for long-range consequences. More recently, the abolition of all fees in government-funded primary schools (but not in high-quality municipal primary schools such as the former European and Asian schools) and the provision of free milk to all primary children, have proved to be costly initiatives difficult to implement without unanticipated impacts. In retrospect, initiation of primary teacher upgrading and in-service training must also be seen as policy initiatives which, through their success, created great new financial burdens for the government. Lacking indirect means of funding teacher salaries in government-aided schools, the government has apparently shelved proposals for further in-service training of primary teachers. A proposal for teacher updating, completed early in 1978, has not yet been implemented.[20]

The report of the Kenya National Committee on Educational Objectives and Policies was completed at the end of 1976, but recommendations were not released until early 1978.[21] At the time of writing, few of its almost 340 recommendations had been implemented. Those carried out were principally proposals which did not involve major structural changes in the existing system of education. Action has been postponed on the more

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[18]Statistical Abstract 1979, Table 207, p. 203. (Republic of Kenya 1979).

[19]J. A. Nkinyangi, "Socio-Economic Determinants of Repetition and Early School Withdrawal at the Primary School Level and Their Implications for Education Planning in Kenya," Unpublished Ph.D. dissertation, Stanford University, 1980, p. 292.

[20]Report of the Primary Teachers Updating Programme Committee (Republic of Kenya, Ministry of Education, May 1978).

[21]Report of the National Committee on Educational Objectives and Policies (Republic of Kenya 1976).

radical proposals, such as calling for a comprehensive nine-year terminal cycle and greater emphasis upon vocational and technical subjects. The proposal that English be the medium of instruction in upper primary grades may eventually make the system much more "national" since it will facilitate teacher mobility among different regions of the country.

To understand the educational system which operates over a large part of the country today, one must return to the inherited characteristics of colonial society--elitism, emphasis on formal "paper" qualifications, narrowing down at the upper levels, attention to manual or vocational training, and unequal access among regions, between men and women, and within urban areas. While the roots lie in colonial policies, they are nurtured by a social and economic situation in which material signs of success are still regarded as evidence of greater ability or initiative, in which foreign education and foreign culture generally are highy valued, and where it is the community's responsibility rather than government's to provide basic social and welfare services.

The strength of Kenya's development--the willingness of the vast majority of the population to contribute both labor and resources to communal projects through Harambee--is also a weakness. It inhibits coherent planning and creates a vicious circle in which those communities with greatest resources are best able to demonstrate the ability to initiate and sustain projects--preconditions for capturing government support. Harambee development, which was seen as a means of enhancing equity by tapping scarce resources, has actually reinforced regional inequalities. These inequalities are obvious if one compares proportions of school-age children attending school in each province. It ranges from over 100 percent in the high-potential areas of Central, Nyanza, and Western Provinces to nine percent in Northeastern Province, an area of nomadic pastoralism.[22] The failure of the system to reach such marginal regions is one of its greatest weaknesses.

Within urban areas inequalities follow the old racial divisions, now geared to the ability to pay. These inequalities are increasingly evident at the level of preprimary schooling, now a virtual prerequisite for entry into primary schooling in Nairobi. In the face of this, it is worth noting that although Nairobi contains a major clustering of high-cost

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[22]Economic Survey 1980, p. 179 (Republic of Kenya 1980). The figures of over 100 percent are apparently attributable to students who repeat within the system. This phenomenon is more prevalent in the more developed areas of the country.

private schools as well as high-quality city council schools, the opportunities to enter primary school actually are shrinking for children of parents unable to pay fees. Between 1978 and 1979, while the total primary school population rose slightly, the proportion of primary school age children actually in school in Nairobi declined, from over 72 percent to just 70 percent. It is now lower than all other provinces except the Coast and Northeastern.[23] This is explained at least partly by the intense competition for primary places in a situation where the chances of obtaining a place in Form I are correctly perceived to be higher than almost anywhere else in the country.[24] Particularly significant is the sharp decline in female primary school attendance in Nairobi between 1978 and 1979, which may refect the greater employability of female children as maids or "ayahs" (baby nurses) in middle and lower income urban households.

Outside the major towns, in addition to regional inequalities in proportions of children in school, there are marked differences in facilities, C.P.E. results, admissions to secondary schools, proportions of qualified teachers, and the grades of those who are qualified. The school pyramid still exists, together with significant differences in school enrollment and dropout rates between boys and girls, which become greater at the higher levels of the system. In 1978, the proportion of women showed a decline from 44 percent of Form I students nationally to 26 percent of those in Form VI.[25] These differences are greatest in areas which already have the lowest enrollments and where parents are reluctant to bear the costs of educating girls.

The failure of the system to generate what one author calls an "alternative ideology" legitimating the "second chance" locational and nonformal channels of education referred to in the 1974-1978 Development Plan, is more important than the system's persistent inequalities. The marginality of large sections of the population can be remedied only through access to education outside the formal system. The provision of the access is one of the critical questions for the future of

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[23]Economic Survey, p. 179.

[24]A higher percentage of the Standard VII class is enrolled in Form I in Nairobi than elsewhere in the country but many of the new Form I students were not attending Standard VII in Nairobi schools. See Statistical Abstract 1979, Table 206b, p. 202.

[25]See Statistical Abstract, Table 206a, p. 202.

education in Kenya. Until 1978, the tendency was for these channels to develop only slowly and to depend heavily on independent self-help initiatives. The announcement in late 1978 of a national campaign to eradicate illiteracy provided the first evidence of a new direction in educational policy. The program's potential to provide opportunities to those excluded from the formal system is already evident in patterns of participation, e.g., the predominance of women enrollees. In Rift Valley Province alone, women constitute two-thirds of the students, and proportions are even higher in other areas, especially the most developed districts of the former white highlands and in Nakuru District itself. The fewest women are enrolled in the most marginal districts of Narok, Turkana, and West Pokot.[26]

In vocational education the system has not provided alternative channels, despite a proposal in the early 1970s to utilize correspondence instruction for this purpose.[27] The viability of correspondence education has yet to be tested. It would be accessible to large sections of the population barred from access to the formal system, such as school-leavers (estimated at almost a quarter of a million annually), women, and geographically isolated groups. The proposed introduction of an external degree program at the University of Nairobi, under discussion since the 1970s, would represent a significant "opening up" of the formal system. The present stringent entry requirements admit only one of every eight children who begin primary school. For the generation who completed secondary school before the mid-1960s, university admission is even more limited.

The risks in such a program are that it would benefit those who have already gone the furthest in formal education and might divert resources from priorities such as basic literacy. However, these arguments can be used as rationalizations by persons threatened by an opening up of the system. Ultimately, the question is political and ideological--whether a system can recognize that the needs of those outside it are more compelling than of those within it. To do so would require a degree of enlightenment rare in any society.

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[26] "Enrollment Summary in Adult Classes in Rift Valley Province, 1979," B.J.K. Muhoro, Education Officer.

[27] P. Kinyanjui, "Education by Correspondence: The Kenyan Experience," in Court and Ghai.

APPENDIX H

PROFILE OF RURAL CORRESPONDENCE COURSE STUDENTS

PROFILE OF RURAL CORRESPONDENCE COURSE STUDENTS

EXPLANATORY NOTE

The Impact Evaluation Team conducted abbreviated life-history interviews with a random sampling of rural primary teachers who participated in the radio correspondence education program. Interviews of this kind were regarded as indispensable in assessing the career development, attitudes, and quality of life changes in individual teachers. Did the in-service training opportunity lead to consequences for the individual that otherwise would not have occurred? The poignant story of David Kariuki[1], a 34-year-old Kikuyu teacher in Kigogo Village of Nyeri District, is in many ways typical of the personal histories recorded by the team in its visits to rural primary schools in six of Kenya's seven provinces. It is of particular interest because Mr. Kariuki's initial experience with the Correspondence Course Unit shortly after its establishment in 1967 contrasts so sharply with what happened when he signed up for new courses in 1979. Somewhat in contrast is the story of James Chepkwony of the Kabiemit Primary School in Western Province.

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Tucked away in verdant rolling hills at 7,000 feet in Kenya's cool central highlands is Kigogo Village. It is reached by a 45-minute drive on a rough, muddy track from Nyeri town in densely populated Central Province. The University of Nairobi's resident lecturer at Nyeri, George Reche, arranged to have Father William Wanjuki as our guide, an ebullient priest of the African Independent Church, which he informed us was a somewhat unorthodox spin-off of the Greek Orthodox Church. The prelate had a spontaneous sense of humor and was obviously proud to guide us around his parish. Our quest was to find a primary teacher at Ihithe Primary School who had been a correspondence course student for two years according to information at the University of Nairobi's Extra-Mural Center in Nyeri.

Kigogo is a picture-book village populated largely by Kikuyu smallholders who intensively cultivate coffee, tea, maize, and a variety of vegetables. The primary school--baked mud walls and floor with corrugated iron roof, dark interior,

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[1]The names of informants and their schools have been changed.

and primitive desks--was alive with the voices of reciting children. The headmaster quickly referred us to David Kariuki, an energetic, intense teacher of serious demeanor and, as we were to learn that afternoon, strong opinions. When we explained our study of correspondence education, he unhesitatingly told us of his experience in detail and much about his life.

Mr. Kariuki's father died in 1948. As the eldest child, he became the principal source of support for his mother, three brothers, and two sisters. Although he worked long hours in local horticulture, he managed to continue his schooling and graduate from primary school in 1962 at the age of 15. Two years later he started teaching as an unqualified teacher in Kigogo Primary School at 17.

Continuously short of income when he first began teaching school, Mr. Kariuki supplemented his earnings to support his mother and siblings, then his own wife and children, with a bit of moonshining. He distilled a potent, now illegal, local drink by fermenting boiled black millet, maize flour, and wheat and sold it in Sprite bottles for 12 shillings ($1.60). Mr. Kariuki gave up his hidden mountain still some years ago to open a legitimate shop in Nyeri, which he runs in his spare time.

Mr. Kariuki first enrolled in correspondence courses in 1968, signing up for English, mathematics, and geography. The lessons were mildly difficult, and he was helped considerably by the correlated radio lessons for teachers broadcast on medium-wave from Nairobi on weekdays from 5:15 to 6:00 p.m. The signals were sometimes weak and frequently interrupted by electrical storms during the rainy seasons. In 1969 he passed the qualifying examination and was automatically promoted to P3, the lowest level of qualified primary teacher. Mr. Kariuki was impressed with the high quality of the correspondence lessons, their prompt correction by part-time tutors and return by mail in about two weeks, and the opportunity for promotion when he passed the examination. He wanted to continue the correspondence instruction to prepare for the Kenya Junior Secondary Examination (KJSE) and then to qualify for immediate promotion to P2 status, but he could not afford the tuition. Therefore, he studied privately with occasional help from a local tutor, taking Kiswahili, biology, and history. The private study proved considerably more difficult.

Mr. Kariuki's teaching day began at 8:15 a.m. and finished at 3:20, except on days when he remained to supervise games and other extracurricular activities. When the time permitted, he listened to Voice of Kenya CCU broadcasts until 6 p.m. He would have supper, then take a nap at 7 p.m., awakening at 10 p.m. to correct the lessons of his pupils and then turn to his

own studies which continued by kerosene lantern all night. He passed the KJSE in 1971 and was promoted to P2, his present status. He resumed the CCU program and continued for another year of professional instruction, subsequently qualifying for the East African Certificate of Education (EACE), roughly equivalent to four years of high school. For all his CCU courses he would have liked to attend short courses of residential instruction offered during the April, August, and December school holidays, but could not afford the tuition and board.

Mr. Kariuki was upset when in 1977 the Teachers Service Commission, which assigns all government-paid teachers in Kenya, posted him to a primary school near Karatina, some 18 miles from Kigogo. He continued to live in Kigogo, commuting daily by matatu (jitney) at a cost of 20 shillings ($2.74), which amounted to a good part of his salary of less than $100 a month. After two years, he managed to transfer back to Kigogo Primary School. He teaches fourth and sixth grade English and seventh grade science and geography, with three free periods a week. When ill he has little alternative but to meet his pupils unless another teacher can be persuaded to double up his classes.

In 1979 Mr. Kariuki once again enrolled for CCU courses, this time in geography, English, and health education in preparation for an examination that could qualify him for promotion to P1 status. When many months elapsed and he had still not received the course materials, he checked with the University's Nyeri Center, which got in touch with the CCU. Some materials eventually came, but essential textbooks and guidelines were still missing. He again checked with the Nyeri Center, but this produced nothing. Mr. Kariuki submitted his first lessons in May 1980, but by November he had not received them back from the tutors at CCU. He has become disillusioned with CCU and has not sent any more tuition. He wants to continue his correspondence instruction, but is puzzled as to why CCU is not providing the fine service he received 10 years ago. "The spirit of CCU is very good," he remarked, "and I would be happy to save money for tuition if I could only receive the lessons, guidelines and textbooks." He sat for the London GC examination in June 1979 and is still awaiting the results, one and a half years later.

Mr. Kariuki asked if we could offer him scholarship assistance to study in the United States. We explained that foreign assistance organizations offer few opportunities for study abroad these days, and those are nearly always at the graduate level. At that moment, Mr. Kariuki's former tutor arrived to lunch with him at his family house. He invited us to join him for ugali, but we declined because of another commitment. Later that afternoon we gave Mr. Kariuki a lift to Nyeri so he could attend to his business.

In the United States it might be called high plains country. In Kenya, it is flat savannah, hot in the day and cold at night, a mile high and almost on the Equator. The people who live here, not far from Eldoret, are accustomed to the quick diurnal changes in temperature, as one also assumes they are accustomed to the vicissitudes of the seasonal weather which one year might provide them with good rains and full crops and the next little rain and a scant harvest. Development--if it means the assurance of anything--is rather tangible here: food on the fire, money for the childrens' school uniforms.

Kigogo Primary School has a large playground and the classroom buildings are situated on its eastern and northern perimeters. Some of the classrooms are better than the others, having brick walls rather than the more common mud and wattle construction that characterizes many of the school buildings in the area. Blackboards are built into the walls, rough-edged and chipped across their surfaces so that words or sentences must sometimes be carefully chalked around the holes.

Some classrooms simply have raw, tree-trunk benches planed flat on the top. Others have desks of that certain universal vintage gained from the not-always-gentle attentions of successive generations of students marking their passage through yet one more class. There are no lights in the shadowed, dusty interiors of these classrooms--no electric power lines extend to the school grounds.

James Chepkwony is a teacher at the Kigogo Primary School. He neither complains about nor refers to the physical environment in which he teaches Standard VII students. It would appear quite possible that he is all but oblivious of the rudimentary nature of the classroom facilities, if only because it is abundantly clear he derives great satisfaction from being a teacher. He talks of the subjects he teaches with unalloyed enthusiasm, especially mathematics and geography. In the latter, he professes having had some early difficulty, but now he exudes the confidence of a student who has mastered the subject matter and is convinced of his ability to pass that competence on to others.

James Chepkwony is still a young man, but he began his teaching career some 10 years ago, apparently with a CPE pass and a teacher training course. Given the opportunity to advance a grade in salary, from P3 to P2, if he passed the KJSE, he enrolled in the CCU correspondence courses and passed the exam. Mathematics was, and continues to be, his favorite subject, but in geography he had "less background." He found the CCU radio broadcasts particularly helpful in working through the course material. Because he believes that the radio broadcasts in the various subjects give him pointers on improving his own teaching techniques, he continues to listen. He has

also pursued his academic education by enrolling in correspondence courses offered by CCU up to the "O" Level and through study on his own with textbooks purchased from commercial bookstores. With the "O" Levels now behind him, he is working on course materials (not CCU) for the "A"-Level subject examinations.

University? Absolutely, if he can get a place. Can AID help him go to a university in the United States? He would like to get a degree in economics.

Did he ever share the course materials he received from CCU with friends or neighbors? Of course. One friend, also a teacher, used the materials, listened to the radio, and has already passed his examinations.

Leading the way onto the playground, Daniel Murgun is eager to show visitors the fruit of one of his extracurricular activities: coaching some of the children in traditional African dances and songs. The group carries spears and wheels back and forth across the field with great vigor and accompanying sound effects, chanting, feet stamping, and arms moving in time with a rhythm evocative of the Kenya plains and life upon them. However, two of the dancers do wear tee-shirts declaring "Million Dollar Man." Mr. Chepkwony notes with pride that the group from the school he coached last year won the district-level competition for traditional dancing. But one suspects from his polite impatience that he wants to be free of his visitors and start working with these children, for it is his involvement in teaching them that he enjoys more than winning the district championship.

Esther Wanjiru pushed aside her tiny desk and straight-backed wooden chair to make room for us in the semi-converted storeroom where she works. She keeps accounts for one of the churches in its provincial headquarters office, and has been trying for several years to improve her certification level and her job status. She was first employed in 1977 as a clerk in a secondary school, but her apparent skills with numbers led to a transfer to the church's provincial education office and her present job. She likes to work with numbers and wants to continue to do so, but with more formal training. Her educational background is mixed. She attended a girl's secondary school run on a Harambee basis, but failed to complete EACE. She attributes the failure to bad teaching in a school that was not yet receiving any government assistance. For a short time she worked as a teacher and then attended a private secretarial college. The fees were high, and she had to seek help from her parents. It was this training that enabled her to get her current job. Since then she has tried in different ways to improve her qualifications, by setting EACE as a private candidate and by seeking either an EACE-level course in Commerce or

the Accounts Clerk Stage I in which she finally enrolled with the Correspondence Course Unit. Of her earlier failures, she says, "At that time I never knew the use of learning, of schooling." Her experience with the CCU has been disappointing. She wrote to them in March of this year, and her letter was not answered for two months. She paid an installment but did not receive her required books, which are unavailable elsewhere, until September. By then she had booked the Accounts Clerk I exam, given in December, and was forced to cancel. She wants to start afresh, but is very discouraged. She is seeking sponsorship, and asked us whether we could help. Her present employers have no funds for this.

Since she had taught for a short period, we asked her about the teaching profession. Her views were negative. Teachers in the new adult literacy program are insecure. Her cousin, an untrained teacher, had taken the two-week residential course and then dropped out fearing that if the program were successful she might eventually lose her job. Her cousin is one of the lucky ones--she was able to get a place in a Teacher Training College. According to Miss Wanjiru, this is almost impossible through straightforward means--it takes either luck or bribery or both. And once you join the profession, promotions are "very difficult, very difficult." She thinks that her own chosen profession of clerk-bookkeeper offers better chances of improving her position, if she can pass the hurdles.

APPENDIX I

SPREAD OF THE KENYA MODEL OF DISTANCE TEACHING

SPREAD OF THE KENYA MODEL OF DISTANCE TEACHING

The organizational structure and methodology of the Correspondence Course Unit (CCU) at the University of Nairobi has been applied successfully to indigenous needs in Kenya other than upgrading primary teachers. CCU helped train field officers for rural agricultural cooperatives and is now assisting in the preparation of teaching materials for the newly literate. The resources of CCU have been tapped by regional and international organizations such as the UN Economic Commission for Africa, for training government development specialists, UNICEF for training extension workers in communications for social development, and the International Cooperatives Alliance for developing training workshops in other African countries for rural cooperative field workers.

The Institute of Adult Studies and its CCU component have extended technical assistance in the form of workshops, consultants, in-service trainig opportunities, sample course materials, textbooks, and radio scripts not only to a dozen or more African countries, but to educators in countries as far-flung as the Philippines, Papua New Guinea, Sri Lanka, and Nepal. CCU was instrumental in organizing and promoting the African Association for Correspondence Education. An impressive amount of the Institute's human and financial resources has gone into helping other countries benefit from the Kenya model of radio correspondence education over the past 14 years.

The description of this technical assistance activity that follows illustrates the range of applications and types of requests that have been involved in this impressive effort to share the Kenya experience.

Kenya Institute of Education

When the Kenya Institute of Education set up its Education Media Services, the CCU faculty and tutors trained a number of secondary school teachers and lecturers from teacher training colleges in the preparation of radio script and course materials for in-service teacher training.

Meru District Project for New Literates

The United Kingdom selected Meru District as a focus for adult literacy assistance in a cooperative program involving the Department of Adult Education in the Ministry of Culture and Social Services, the British Council, and the Institute of

Adult Studies. Mr. Khalfan Mazrui, a CCU tutor trained by the University of Wisconsin team, served as a resource specialist in a workshop on the design and production of reading materials for new literates in Meru.

Cooperatives College of Kenya and the International Cooperatives Alliance

In 1971, the CCU was asked by the Cooperatives College of Kenya to assist it in setting up its own correspondence course unit to train cooperative field officers in organizing cooperatives at division (about 10,000 families) and location (about 1,000 families) levels in Kenya. These were mostly rural agricultural production and marketing cooperatives. Field officers required skills such as bookkeeping and management for cooperatives. The CCU staff trained Cooperatives College faculty in course writing and radio script and production techniques through workshops and training courses. The Voice of Kenya provided air time for training lessons designed for rural cooperatives workers. When the Kenya program proved to be successful, CCU was asked by the Interational Cooperatives Alliance to extend its workshop training programs to Tanzania, Zambia, and Mauritius among others. The Cooperatives College and International Cooperatives Alliance paid CCU for these services. The programs are continuing with considerable success in Kenya and other countries of the region.

The African Association of Correspondence Education

An Africa-wide association of 40 government-supported correspondence training institutions and several hundred professional members was founded at Nairobi in June 1973, principally upon Kenya's initiative. Mr. Peter Kinyanjui, Director of the Institute of Adult Studies, served as its first chairman for five years. Conferences for all African states are conducted every three years, and regional meetings are scheduled annually. National institutions are represented in the Association from Algeria, Tunisia, Egypt, Nigeria, Liberia, Ghana, Sierra Leone, Zambia, Tanzania, Malawi, Togo, Botswana, Lesotho, Swaziland, Uganda, Sudan, and Ethiopia.

UN Economic Commission for Africa (ECA)

The Institute of Adult Studies has been designated as the regional training center for ECA training of development specialists for government and semi-government agencies in 16 African countries. The fourth annual four-week training course

will be held in June 1981, with ECA covering travel, per diem, and local fees for participants while Kenya contributes expertise and facilities. The intensive course includes background in the CCU concept and its application to distance training in other countries. Participants have come from Ethiopia, Sudan, Uganda, Tanzania, Zambia, Malawi, Botswana, Mauritius, Mozambique, Gambia, Sierra Leone, Nigeria, Ghana, and Liberia.

UNICEF Program in Communications for Social Development

The Institute for Adult Studies is collaborating with UNICEF in a joint program to train extension workers in communications for social development. Mr. Daudi Nturibi, who did graduate work in Adult Education at Syracuse University and began his career at the Correspondence Course Unit, is on leave as Institute for Adult Studies Coordinator for Resident Courses to serve with UNICEF for three years in a new $1 million program covering eastern and southern Africa. Resident workshops at the Institute of Adult Studies will cover the distance teaching method of using correspondence courses and radio broadcasts.

Lesotho Distance Teaching Center

The International Extension College at Cambridge, England promotes distance teaching in Third World nations. When Mr. Peter Kinyanjui was on sabbatical leave in 1973-1975 to serve as codirector of the College, he was instrumental in helping to apply his Kenya CCU experience to start distance teaching programs in other African countries. He helped draft project proposals for submission to foreign donors and planned training programs for indigenous counterpart personnel to take over after foreign experts departed. Following approval of a World Bank loan and USAID funding to finance the Lesotho Distance Teaching Center, Lesotho specialists spent three weeks to three months of in-service training at CCU in Kenya. A Lesotho student now at Syracuse University is writing a master's thesis on the CCU experience with the idea that a careful analysis of the Kenya program will better prepare Lesotho to apply the benefits and learn from the shortcomings of the Kenya project.

Botswana Extension College

While at the Cambridge International Extension College, Peter Kinyanjui drafted a proposal which succeeded in securing Ford Foundation funds to initiate extension teaching in

Botswana. Mr. Mgomezulu, Director of the Extension College, spent three months at CCU studying multimedia approaches to continuing education.

Mauritius College of the Air

Mr. Ben Karuga Gitau, current director of the Correspondence Course Unit, served as a consultant to help the Mauritius College of the Air and its Director, Kenneth Noyau, launch an in-service training program employing correspondence and radio for cooperatives education. The assignment grew out of a regional workshop at Nyeri, Kenya, for lecturers in cooperatives colleges for Eastern and Central Africa. Mr. Gitau discussed the special application of correspondence and radio teaching as one method of teaching subjects such as cooperatives management, law, and accounting. Mrs. Barbara Matiru, English course writer and tutor at CCU, headed a team of three Kenya lecturers who visited Mauritius to help train counterparts in cooperatives education through correspondence lectures. Mr. Peter Kinyanjui helped draft a project proposal for the Mauritius College of the Air which subsequently received support from OXFAM and another British institution.

Zambia

Mrs. Barbara Matiru conducted a three-week workshop on writing correspondence courses for the national Adult Education Institution in Zambia.

Swaziland Cooperatives College

The International Extension College at Cambridge recently requested CCU to help the new Swaziland Cooperatives College set up a correspondence program for teacher training by providing sample course materials and radio scripts. A specialist from Swaziland has been invited to CCU for three months on in-service training in the three-way teaching methodology. In 1977, a Correspondence Course Unit in Swaziland was set up based on discussions with Mr. Mwema Maina, an IAS lecturer in history, and on observations of the CCU program and adaptation of Kenya course materials.

Nigeria--University of Ahmedo Bello, Department of Adult Education

Mr. Terrence Murphy, a British adult education specialist formerly associated with the Kenya Institute of Adult Studies and now Director of the Department of Adult Education at Nigeria's Ahmedo Bello University, last year requested sample course and radio materials from CCU in order to establish a correspondence course unit within the Nigerian institution. The Kenya CCU received a request to conduct a training workshop in Nigeria this year.

Uganda--Makere University, Kampala

Since 1978, University of Nairobi students studying for diplomas in education have had the option of specializing in adult education. A Ugandan candidate for the diploma in education who was a tutor at the Program in Continuing Education at Makere University prior to the Idi Amin regime, recently completed his diploma in adult education in Kenya and has returned to Kampala in order to revive the Continuing Education Program at Makere.

Ministry of Education and Culture, Government of the Philippines

When the Philippines decided to establish a program of continuing education for primary teachers utilizing radio, television, correspondence courses and short periods of in-service face-to-face teaching, UNESCO recommended that Kenya send an expert. Mr. Peter Kinyanjui accepted the assignment and spent from May to July 1978 in Manila assisting the Ministry of Education and Culture to plan and organize an initial four-year program with a $7 million World Bank loan. Earlier this year Mr. Tany Tunac, an administrator of the Philippines program, spent three weeks at the Kenya CCU studying the administration and finance of distance teaching.

Papua New Guinea

In response to a request in 1974, from the International Extension College at Cambridge, Mr. Peter Kinyanjui consulted with the university adminstration, government officials, and national radio station in Papua New Guinea on a new program of external studies. As a result of his recommendations to the

university vice chancellor, a diploma course of external studies and pre-university preparatory courses for university entrance were organized with funding from the Association of Commonwealth Universities. In 1977, two members of the Papua New Guinea University external studies staff participated in a three-week program of in-service training at the Kenya CCU. More recently, Papua New Guinea requested a complete description of the CCU methodology as background to set correspondence courses for in-service training of primary school teachers.

Government of Nepal Radio Education Project for Teacher Training

An expert from USAID visited the Kenya Correspondence Course Unit to secure background information and materials in connection with helping the Government of Nepal to organize and produce radio courses for primary teacher training.

The Open University of Sri Lanka

Sri Lanka organized an open university in June 1980 and plans to send three or more specialists for in-service training in distance education at the Institute of Adult Studies in Kenya next year. Sri Lanka learned of Kenya's experience in this field at the last meeting of the Africa Association for Correspondence Education held in Addis Abbaba, Ethiopia in 1979.

Southeast Asian Symposium on Distance Education

Mr. Ben Karuga Gitau, Director of the CCU, has been invited to present a major paper on correspondence course education at the Southeast Asia Symposium on off-campus education to be held in the summer of 1981 at Penang, Malaysia.

Australia

A Canadian specialist in correspondence education, Dr. Porter, visited CCU for a week in 1978 to learn how Kenya's experience with science kits distributed in conjunction with correspondence education could be applied to a new off-campus program of science education in Australia where he is serving as a consultant.

Research on the Kenya Experience with Correspondence Course Education

Six Kenya university students are currently conducting research toward diplomas in adult education on various aspects of the Kenya experience in this field. Their research subjects include (1) how to assess learner needs in developing correspondence courses and radio materials, with specific reference to adult literacy programs; (2) the impact of broadcast media in eradicating cholera and malaria in the ghetto areas of Nairobi; (3) the impact of radio programs in literacy training on formative evaluation in the Kikuyu area; (4) an assessment of the Kenya Junior Secondary Education CCU preparatory course in history; and (5) the impact of primers in an examination of the value of print media in Kenya education.

APPENDIX J

ITINERARY OF THE IMPACT EVALUATION TEAM

ITINERARY OF THE IMPACT EVALUATION TEAM

AID/W Team Members: W. Eilers; P. Layne; D. Rhoad
USAID/Nairobi Backstop: L. Douris
Consultant: C. Robins

MONDAY, NOVEMBER 3: NAIROBI--TEAM ASSEMBLES

- MEETING WITH USAID AND REDSO STAFF

  Review of purposes, scope, and methodology of impact evaluation

- MEETING WITH P. KINYANJUI, DIRECTOR, INSTITUTE OF ADULT STUDIES (IAS), UNIVERSITY OF NAIROBI

  Briefing on purposes of evalution and discussion of general background of Radio Correspondence Project. Planning of Nairobi schedule of appointments.

- MEETING WITH C. ROBINS, CONSULTANT (SOCIOLOGY)

  Interview to determine terms of reference and feasibility of consultancy on impact evaluation

TUESDAY, NOVEMBER 4: NAIROBI

- INSTITUTE OF ADULT STUDIES (KIKUYU), UNIVERSITY OF NAIROBI

  Full day meeting and interviews with staff of IAS on history and organization of Institute and Correspondence Course Unit (CCU) components. Discussions with: P. Kinyanjui, Director; B.K. Gitau, Assistant Director and Head of CCU; B. Matiru, English Course Advisor; K. Maina, History Course Advisor; and B. Catlett, teaching staff.

WEDNESDAY, NOVEMBER 5: NAIROBI

- KENYA INSTITUTE OF EDUCATION (KIE), MINISTRY OF BASIC EDUCATION

  Meeting with H. Kanina, Director, KIE, for briefing on primary education system and KIE/IAS interface; discussion of teacher training and upgrading programs

- USAID/NAIROBI PROGRAM OFFICE

  Definition and draft of scopes of work for consultancy services and Purchase Order

THURSDAY, NOVEMBER 6: NAIROBI

- INSTITUTE OF ADULT STUDIES (KIKUYU)

  Follow up interviews with IAS Staff, including B.K. Gitau, Head of CCU, and M. Kiruhi, radio tutor, CCU

- DEPARTMENT OF ADULT EDUCATION, MINISTRY OF CULTURE AND SOCIAL SERVICES

  Meeting with Director D. Macharia and Assistant K. Kirui; further briefing on CCU history, GOK policy, and organization of national Adult Literacy Campaign

FRIDAY, NOVEMBER 7: NAIROBI

- ADULT EDUCATION OFFICERS' TRAINING COURSE (LIMURU)

  Meeting with first of two groups of provincial and district Adult Education Officers in orientation and training course for Adult Literacy Campaign

- DEPARTMENT OF ADULT EDUCATION, MINISTRY OF CULTURE AND SOCIAL SERVICES

  Preparation of Letter of Introduction by Director Macharia for impact evaluation team

- MINISTRY OF BASIC EDUCATION

  Meeting with I.J. Omondi, Director of Basic Education, and I. Hunja, Director of Education Planning and Policy. Preparation of Letter of Introduction from Permanent Secretary for impact evaluation team

- KENYA INSTITUTE OF EDUCATION

  Meeting with R. Thompson, Assistant Director for Educational Media Services

SATURDAY, NOVEMBER 8: NAIROBI

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NAIROBI

  Meeting with K. Odumbe and J. Oriddo of center staff to discuss organization and operation of extra-mural programs and courses

MONDAY, NOVEMBER 10: SPLIT TEAM/LOCATIONS

Group A--Nyeri

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NYERI

  Meeting with Cetner staff and others. Discussions with G.N. Reche, tutor, Extra-Mural Center for Nyeri; M. Ngashe, IAS staff (Kikuyu); and Father W. Wanjuki, African Independent Church

- PROVINCIAL BASIC EDUCATION OFFICE, CENTRAL PROVINCE

  Meeting with L. Kago, PBEO

Group B/C--Nairobi

- INSTITUTE OF ADULT STUDIES (KIKUYU)

  Scheduled meeting with Assistant Adult Education Officers participating in a two-month training course as supervisors of Adult Literacy Teachers

- ADULT EDUCATION OFFICERS' TRAINING COURSE (LIMURU)

  Meeting with second group of provincial and district Adult Education Officers in orientation and training course for the Adult Literacy Campaign

TUESDAY, NOVEMBER 11: SPLIT TEAMS/LOCATIONS

Group A--Nyeri

- IHITHE PRIMARY SCHOOL

Interview with J.M. Kiruthi, Teacher, and 11 students from a teacher training college who were practice teaching at the primary school

- IHURURU PRMARY SCHOOL

  Meeting with K. Gitonga, Headmaster

- IWHA PRIMARY SCHOOL

  Meetings with teachers D. Mwangi, E. Kimary, and S.N. Itegi

- KIHATHA PRIMARY SCHOOL

  Meeting with P. Wangaci, teacher

Group B--Nyeri

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NYERI

  Meeting with G.N. Reche, tutor

- AREA LOCATIONS

  Meetings and arrangement of meetings with CCU students, including M.W. Andrew at Catholic Education Office and T. Magutu at Post Office

- PROVINCIAL BASIC EDUCATION OFFICE, CENTRAL PROVINCE

  Official courtesy call

Group C--Eldoret

- DISTRICT BASIC EDUCATION OFFICE, ELDORET

  Official courtesy call and meeting with Z.S. Matere and P.K. Ruto, both AEOs and J.H. Kwadha, Assistant PSI

- CHEPTIRET PRIMARY SCHOOL

  Meeting with D. Githuka, Headmaster; D. Cheptileh, teacher; and D.P. Lusweti, AEO

- PLATEAU PRIMARY SCHOOL

  Meeting with W. Karuki, Deputy Headmaster

- NAIBERI PRIMARY SCHOOL

  Meeting with D. Murgun, teacher

WEDNESDAY, NOVEMBER 12: SPLIT TEAMS/LOCATIONS

Group A--Nakuru

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NAKURU

  Meeting with J. Ogweno, tutor

Group B--Nyeri/Nakuru

- PROVINCIAL BASIC EDUCATION OFFICE, CENTRAL PROVINCE

  Meeting with L. Kago, PBEO

- KAMWENJA TEACHERS TRAINING COLLEGE

  Meeting with J. Ndungu, Principal

- NYERI TOWNSHIP

  Meeting with T. Magutu, CCU student

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NAKURU

  Meeting with J. Ogweno, tutor

Group C--Eldoret/Kakamega/Kisumu

- DISTRICT ADULT EDUCATION OFFICE, ELDORET

  Meeting with P. Agesa, DAEO and Assistant DAEOs J. Samu and J. Thiongo

- DISTRICT BASIC EDUCATION OFFICE, KAKAMEGA

  Official courtesy call and meeting with G. Rubbiroh, DBEO and E. Engoke, District PSI

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR KAKAMEGA

  Call on staff to arrange meetings for following day

- DISTRICT BASIC EDUCATION OFFICE, KISUMU

  Official courtesy call and meeting with K. Hganga, DBEO, and J. Olouch, District PSI

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR KISUMU

  Call on N. Ogombe, Center Organizer, and meeting with F. Wamalwa, CCU student

THURSDAY, NOVEMBER 13: SPLIT TEAMS/LOCATIONS

Group A--Kakuru

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NAKURU

  Meeting with large group of local education officials headmasters, teachers, and current CCU students; these included a Deputy DBEO, a Deputy Headmaster of a Nakuru Primary school, a retired PSI, and a teacher from the Nakuru School for the Deaf; CCU students included R. Khaemba, teacher, and N. Ayiedko, nurse

- ST. JOSEPH'S PRIMARY SCHOOL

  Meeting with M. Oguto, Deputy Headmistress, and several teachers

- MAMA NGINA PRIMARY SCHOOL

  Meeting with P. Mwaura, Headmaster, and several teachers

Group B--Nakuru

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR NAKURU

  Participated in same meeting as Group A (noted above)

- PROVINCIAL BASIC EDUCATION OFFICE, RIFT VALLEY PROVINCE

  Meeting with M. Mbonya, AEO

- PROVINCIAL ADULT EDUCATION OFFICE, RIFT VALLEY PROVINCE

  Meeting with M. Muhoro, PAEO

- DISTRICT BASIC EDUCATION OFFICE, NAKURU

Meeting with K. Kabbis, Deputy PBEO, and G. Gachinji and G. Gaitho, both of the District Basic Education Office staff

Group C--Kakamega

- MURAKA PRIMARY SCHOOL

  Meeting with W. Tsuma, Headmaster, and teachers J. Lidali and D. Oggema

- MUSENO PRIMARY SCHOOL

  Meeting with M. Kasiti, teacher

- MUSINGU PRIMARY SCHOOL

  Meeting with P. Shivachi, Headmaster, and M. Lusinde, teacher

- SHIKONDE PRIMARY SCHOOL

  Meeting with K. Shinkanga, Headmaster, and teachers F. Obonyo and J.S. Aleshu

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR KAKAMEGA

  Meeting with J. Siele, Center Organizer, and M. Ngashe, IAS (KIKUYU)

FRIDAY, NOVEMBER 14: SPLIT TEAMS/LOCATIONS

Group A--Nakuru

- NDARUGU PRIMARY SCHOOL

  Meeting with Headmaster and teachers, including B.P. Waithaka

- NGORO PRIMARY SCHOOL

  Meeting with S. Macharia, Headmaster, Deputy Headmaster, and teachers

- NGANO PRIMARY SCHOOL

  Meeting with J. Njununa, Headmaster, and teachers

Group B--Nakuru

- KABAZI PRIMARY SCHOOL

  Meeting with teaching staff

- ENGOSHURA PRIMARY SCHOOL

  Meeting with teaching staff

Group C--Kisumu

- KASAGAM PRIMARY SCHOOL

  Meeting with teaching staff and individual interviews with teachers I. Muyoyo, J. Onunga, and J. Akech

- RABUOR PRIMARY SCHOOL

  Meeting with Headmaster, E. Olang

- KIGOCHE PRIMARY SCHOOL

  Meeting with Headmaster and Deputy Headmaster

- NYAKAKO PRIMARY SCHOOL

  Meeting with G. Odhiambo, teacher

- PROVINCIAL ADULT EDUCATION OFFICE, NYANZA PROVINCE

  Meeting with G.O. Ongoro, PAEO

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR KISUMU

  Meeting with A.A. Opeywa, CCU student

- DISTRICT ADULT EDUCATION OFFICE, KISUMU

  Meeting with T. Opere, Assistant Adult Education Officer

- LITERACY CLASS OUTSIDE KISUMU

  Observation of adult literacy class

- LITERACY CLASS AT KISUMU UNION PRIMARY SCHOOL

  Observation of several classes and meeting with literacy teachers A. Okoth, S. Okwitsa, S. Ogala, F. Ogeda, and F. Otieno

MONDAY, NOVEMBER 17: SPLIT TEAMS/LOCATIONS

Group A--Mombasa

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR MOMBASA

  Meeting with G. Lewa, tutor, and K. Odnede, organizer

TUESDAY, NOVEMBER 18: SPLIT TEAMS/LOCATIONS

Group A--Mombasa

- PROVINCIAL BASIC EDUCATION OFFICE, COAST PROVINCE

  Meeting with J. Ayiedo, Chief PSI

- PROVINCIAL HIGHER EDUCATION OFFICER, COAST PROVINCE

  Meeting with T. Sitima, Senior Officer

Group B--Mombasa

- MUNICIPAL EDUCATION OFFICE, MOMBASA

  Meeting with I.M. Kavu, Municipal Education Officer, Deputy H.N. Madege, and Assistant J.D. Mwakughu

- UNIVERSITY OF NAIROBI EXTRA-MURAL CENTER FOR MOMBASA

  Meeting wtih G. Lewa, tutor, and CCU students A. Okech, N.M. Mitugo, I.M. Nawiga, J. Ndune, and I. Omondi

WEDNESDAY, NOVEMBER 19: SPLIT TEAMS/LOCATIONS

Group A--South Coast

- KWANDA PRIMARY SCHOOL

  Meeting with S. Simba, Deputy Headmaster, and teachers

- WAA GIRLS PRIMARY SCHOOL

  Meeting with Headmistress and teachers

- MG'OMBE PRIMARY SCHOOL

  Meeting with Headmaster and teachers

- MKUMBI PRIMARY SCHOOL

  Meeting with teachers A.A. Ngoni, K.I. Mwasina, and K. Kambi

Group B--Mombasa/Kikambala

- PROVINCIAL ADULT EDUCATION OFFICE, COAST PROVINCE

  Meeting with J. Mungai, PAEO

- KIKAMBALA PRIMARY SCHOOL

  Meeting with P. Liyayi, Headmaster, C. Wakesa, Deputy Headmaster, and R. Nzai, teacher

THURSDAY, NOVEMBER 20: SPLIT TEAMS/LOCATIONS

Group A--Mombasa

- PROVINCIAL BASIC EDUCATION OFFICE, COAST PROVINCE

  Meeting with P. Bukusi, PBEO

Group B--North Coast/Kilifi

- SHANZU TEACHERS TRAINING COLLEGE

  Meeting with College staff, including I.N. Mulili, Deputy Principal; S.V. Bugo, Dean of Students; A. Salim, art education tutor; L.E. Mbogo, Dean of Curriculum; J.A. Othieno, education tutor; G. Mganga, religious education tutor; and students J.B. Mbega, H.W. Chitungah, and P. Kamwea

- DISTRICT BASIC EDUCATION OFFICE, KILIFI

  Meeting with J.A. Mwalwala, DBEO, K.M. Mazrui, District PSI, and T.W. Mwambui AEO

FRIDAY, NOVEMBER 21: SPLIT TEAMS/LOCATIONS

Group A--Machakos

- DISTRICT BASIC EDUCATION OFFICE, MACHAKOS

  Meeting with J.M. Kiilu, Deputy DBEO, and A. Wambua, Kenyatta University College, on student teaching assignment

- MIKUU PRIMARY SCHOOL

  Meeting with G. Nzelu, Headmaster, and teachers, including J. Mutune

- KINYAMBU PRIMARY SCHOOL

  Meeting with M. Nzelu, Headmistress, and L.J. Masaku, teacher

Group B--Kilifi/Malindi

- WATAMU PRIMARY SCHOOL

  Meeting with M. Bashraheil, Headmaster, and M.J. Issa, Deputy Headmaster

- MATSANGONI PRIMARY SCHOOL

  Meeting with Headmaster, J. Katana

- CHUMANI PRIMARY SCHOOL

  Meeting with R. Mwangunya, Headmaster, and J. Mashimba, teacher

- KILIFI PRIMARY SCHOOL

  Meeting with J.J. Katana, Headmaster

- KIBARANI PRIMARY SCHOOL

  Meeting with S. Tsuma, Headmaster

TUESDAY, NOVEMBER 25: NAIROBI

- UNIVERSITY OF NAIROBI

  Meeting with J. Mungai, Vice Chancellor

WEDNESDAY, NOVEMBER 26: NAIROBI

- INSTITUTE OF ADULT STUDIES (KIKUYU)

  Follow-up meetings with CCU staff, including B.K. Gitau, Head of CCU, and course advisors/tutors B. Maturi and M. Maina; information follow-up also provided by P.Kinyanjui, Director, IAS

NOTE: This itinerary identifies only those activities related directly to substantive information gathering. It does not include numerous meetings and discussions of an informal nature that the impact evaluation team held to review findings and methodology, nor does it describe the time required for team members to make travel or other administrative arrangements and actually cover the substantial distances involved in performing field work in six out of seven of Kenya's Provinces.

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