LESOTHO

Instructional Materials Resource Center (Phase II)

(632-0061)

August, 1979

ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR
FOR AFRICA

FROM: AFR/DR ~~John W.~~ Koehring

Problem: Your approval is required to execute a grant of $434,000 from the FY 79 EH appropriation to the Government of Lesotho for the Instructional Materials Resource Center (Phase II) project (632-0061), and a life-of-project funding of $2,909,000.

Discussion: The proposed Lesotho Instructional Materials Resources Center (Phase II) project represents a continuation and expansion of AID-supported activities under an earlier project (Phase I), authorized in FY 77. The project's goal is to assist the GOL's Ministry of Education in developing an improved educational program for both primary and secondary school children by developing instructional materials and curricula that are relevant to the social and cultural environment of Lesotho. Phase I of this project was basically a two-year pilot phase which provided the GOL with technical assistance, essential commodities, and participant training. It was designed to assist the GOL in establishing a permanent institution (IMRC) within the National Teacher Training College (NTTC) which would serve two basic functions:

(1) To develop within the NTTC faculty instructional materials and curricula for use in training pre-service and in-service teachers, and;

(2) To participate with other Ministry of Education entities, notably the National Curriculum Development Center (NCDC), and its subject matter panels, in developing curricula and instructional materials for use in the nation's primary and secondary schools.

This project (Phase II), which was developed as a result of a positive evaluation of the activities under Phase I held in March, 1979, will continue the work initiated earlier. It is anticipated that the teaching and training aids developed under Phase II will be exposed to approximately 600 teachers and at least 30,000 primary and secondary school students, many of whom reside or were born in rural areas of Lesotho.

In order to accomplish the purpose and objectives of this project (which are essentially the same as those under Phase I) a total of $434,000 is requested for obligation in FY 79. The life-of-project funding required is $2,909,000 which would be expended over a four-year period. The following table (in $000's) illustrates the specific areas in which funds would be required:

	FY 1979			
	FX	L/C	TOTAL	L.O.P.
Technical Assistance	$182.0	---	$182.0	$1,539.0
Training	40.0	---	40.0	238.0
Commodities	---	---	---	270.0
Construction	---	212.0	212.0	862.0
Other	---	---	---	---
TOTALS	$222.0	$212.0	$434.0	$2,909.0

The Government of Lesotho will contribute $346,000 to the project which will cover the costs of land for construction of the center, technician and staff housing, salary support for Basotho staff, and in-service training and materials.

The Project has been thoroughly analzyed to ascertain its technical, socio-economic, and financial feasibility. As a result of these analyses, it has been deemed appropriate and responsive to AID's basic human needs approach to development as well as AID's Congressional Mandate to assist the poor majority in LDC's. The Initial Environmental Examination (Attachment 3) submitted hereto for your approval has been reviewed and a negative determination, as requested by USAID/ Maseru, is recommended.

It is anticipated that the project will directly involve women in Lesotho. Females comprise a large percentage of the teachers in Lesotho and it is expected that more than 50% of those benefiting from the teaching aids developed under this project will be women. In addition, the majority of primary and secondary school children in Lesotho are females, and it is anticipated that many of the 30,000 children exposed to materials developed under this project will be females. Women are also expected to represent a large proportion of those individuals receiving training under the project. There are no known human rights problems in Lesotho.

There are two conditions precedent which must be met. They are

1. Prior to the disbursement of funds for the construction of the Center (except disbursement of funds for the preparation of plans and specifications), or to the issuance of any commitment documents with respect thereto, the Cooperating Country shall furnish to A.I.D. the following, in form and substance satisfactory to A.I.D.:

(a) Detailed plans, specifications, bid documents and construction schedules with respect to such activity;

(b) A description of the arrangements made for providing construction services for such activity, including an executed contract for construction with a firm acceptable to A.I.D. unless such services are being provided by force account;

(c) A description of the arrangements made for providing engineering supervisory services for such construction activity, including an executed contract with a firm satisfactory to A.I.D. unless such services are being provided by agencies of the Cooperating Country; and

(d) Evidence that suitable land on the NTTC campus has been allocated for the Center.

2. Prior to the disbursement of funds for the construction of the staff housing, or to the issuance of commitment documents with respect thereto, the Cooperating Country shall furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence that suitable land on the NTTC campus has been allocated for the houses.

In addition, there are six covenants based upon those which are described in Section 7 of the project paper.

The following waivers and approvals are required:

1. Waiver of the 25 percent cost-sharing requirement contained in Section 110(a) of the Foreign Assistance Act of 1961, as amended.

2. Waiver of the policy set forth in AID Handbook 1, Supplement B limiting procurement of commodities under grant-financed projects with RLDC's to countries included in AID Geographic Code

941 to permit procurement of construction materials (approximately $500,000) which have their source and origin in countries included in AID Geographic Code 935.

3. Approval for proprietary procurement of 1 project vehicle from International Harvester at an approximate cost of $12,000. The justification for each waiver and approval requested can be found in Annex J of the project paper.

The Project Review Meeting recommended approval of this project on July 25, 1979. No Congressional Notification is necessary.

The responsible officer in the field will be Joseph Carney, USAID/ Lesotho, and the AID/W backstop project officer will be Alfred Harding, AFR/DR/SA.

Recommendation: That you sign the attached PAF II and IEE and thereby authorize both the proposed project and the requested waivers.

Attachments:
1. PAF II
2. IEE
3. Project Paper

Clearances:
DAA/AFR: WHNorth
AFR/DR: NCohen
AFR/DR/SA: WWolff
AFR/DR/ENGR: LGibson (draft)
AFR/DR/SDP: BBoyd (draft)
AFR/DR/EHR: WWaffle (draft)
AFR/SA: RWrin (draft)
AFR/SA: EWilson (draft)
GC/AFR: AWilliams (draft)
AFR/DP: CReeves (draft)
AFR/DP: RStacy (draft)

AFR/DR/SA: AHarding:agb:8/16/79: X 28818

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS

PART II

COUNTRY : Lesotho

PROJECT : Instructional Materials Resource Center -- Phase II

PROJECT NO. : 632-0061

Pursuant to Part I, Chapter 1, Section 105 of the Fo Assistance Act of 1961, as amended (the "Act"), I hereby authorize a Grant to the Government of the Kingdom of Lesotho (the "Cooperating Country") of not to exceed Four Hundred Thirty Four Thousand United States Dollars ($434,000) to assist in financing certain foreign exchange and local currency costs of goods and services for the project as described in the following paragraph.

The project consists of assistance in the form of technical assistance, training, materials and commodities, and construction to the Ministry of Education of the Cooperating Country to establish an Instructional Materials Resource Center ("IMRC") within the National Teacher Training College ("NTTC"), which will provide materials and curricula for teacher training and for primary and secondary schools (the "Project").

I approve the total level of A.I.D. appropriated funding planned for this Project of not to exceed Two Million, Nine Hundred and Nine Thousand United States Dollars ($2,909,000), Grant, during the period FY 1979 through FY 1982, including the funding authorized above, and additional increments of grant funding during that period up to $2,475,000, subject to the availability of funds and in accordance with A.I.D. allotment procedures.

I hereby authorize the initiation of negotiation and execution of the Project Agreement by the officer to whom such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate:

a. Source and Origin of Goods and Services

Goods and services, except for ocean shipping, financed by A.I.D. under the Grant shall have their source and origin in the Cooperating Country or in countires included in A.I.D. Geographic Code 941 except as A.I.D. may otherwise agree in writing. Ocean shipping financed under the Grant shall be procured in the U.S. or the Cooperating Country except as A.I.D. may otherwise agree in writing.

b. Conditions Precedent

1. Prior to the disbursement of funds for the construction of the Center (except disbursement of funds for the preparation of plans and specifications), or to the issuance of any commitment documents with respect thereto, the Cooperating Country shall furnish to A.I.D. the following, in form and substance satisfactory to A.I.D.:

(a) Detailed plans, specifications, bid documents and construction schedules with respect to such activity;

(b) A description of the arrangements made for providing construction services for such activity, including an executed contract for construction with a firm acceptable to A.I.D. unless such services are being provided by force account;

(c) A description of the arrangements made for providing engineering supervisory services for such construction activity, including an executed contract with a firm satisfactory to A.I.D. unless such services are being provided by agencies of the Cooperating Country; and

(d) Evidence that suitable land on the NTTC campus has been allocated for the Center.

2. Prior to the disbusement of funds for the construction [illegible]e staff housing, or to the issuance of commitment documents with respect thereto, the Cooperating Country shall furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence that suitable land on the NTTC campus has been allocated for the houses.

c. Covenants

The Project Agreement shall contain covenants providing in substance as follows:

1. The Cooperating Country agrees to provide on a timely basis five qualified professional personnel as counterparts to the A.I.D. funded technical advisors, in the specialties shown in the Project Description.

2. The Cooperating Country agrees to provide on a timely basis the support staff for the Project as shown on the staffing table in the Project Description.

3. The Cooperating Country agrees to make available on a timely basis qualified candidates for long-term training in the United States and to ensure that such personnel are subsequently assigned to or retained in positions in the IMRC commensurate with the nature and level of the training received.

4. The Cooperating Country agrees to finance staffing for the Project in accordance with the USAID/GOL financing formula for staff support set forth in the Project Description.

5. The Cooperating Country agrees to finance all recurrent costs associated with the operation and maintenance of the IMRC, except those specifically provided for under A.I.D. financing in the Project budget.

6. The Cooperating Country agrees to provide all necessary coordination among its institutions concerned with the development of instructional materials, particularly the NCDC, NTTC and IMRC, by establishing an executive committee within the Ministry of Education, under the direction of the Permanent Secretary, who will have administrative responsibility for resolving issues which cannot be resolved by the executive committee.

d. Waivers

Based upon the justifications in Annex J of the Project Paper, and notwithstanding paragraph a above, I hereby:

1. Waive the cost sharing requirements of Section 110(a) of the Act, as provided by Section 124(d) of the Act, except that the Cooperating Country shall be required to provide financial or "in kind" contributions in the approximate equivalent value of $346,000, as provided for in the Financial Plan Section of the Project Paper.

2. Approve a waiver of the requirements under Handbook 1, Supplement B that commodities procured with funds granted to an RLDC have their source and origin in countries included in A.I.D. Geographic Code 941, to permit procurement construction materials in the approximate amount of $500,000 from countries included in A.I.D. Geographic Code 935; and

certify that exclusion of procurement of such commodities from Free World countries other than the Cooperating Country and countries included in Code 941 would seriously impede the attainment of U.S. foreign policy objectives and objectives of the foreign assistance program.

3. Authorize the proprietary procurement of one International Harvester passenger vehicle at an approximate cost of $12,000.

Date: Aug 17 79

Goler T. Butcher
Assistant Administrator
for Africa

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

1. TRANSACTION CODE: [C] (A = ADD, C = CHANGE, D = DELETE) — PP

2. DOCUMENT CODE: 3

3. COUNTRY/ENTITY: LESOTHO

4. DOCUMENT REVISION NUMBER: [1]

5. PROJECT NUMBER (7 digits): [632-0061]

6. BUREAU/OFFICE: A. SYMBOL: AFR; B. CODE: [ ]

7. PROJECT TITLE (Maximum 40 characters): [INSTRUCTIONAL MATERIALS RESOURCE CENTER]

8. ESTIMATED FY OF PROJECT COMPLETION: FY [8|4]

9. ESTIMATED DATE OF OBLIGATION: A. INITIAL FY [7|9] B. QUARTER [4] (Enter 1, 2, 3, or 4); C. FINAL FY [8|2]

10. ESTIMATED COSTS ($000 OR EQUIVALENT $1 -)

A. FUNDING SOURCE	FIRST FY B. FX	FIRST FY C. L/C	FIRST FY D. TOTAL	LIFE OF PROJECT E. FX	LIFE OF PROJECT F. L/C	LIFE OF PROJECT G. TOTAL
AID APPROPRIATED TOTAL	419	15	434	1858	1051	2909
(GRANT)	(419)	(15)	(434)	(1858)	(1051)	(2909)
(LOAN)	( )	( )	( )	( )	( )	( )
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY		103	103	-	346	346
OTHER DONOR(S)						
TOTALS	419	118	537	1858	139-7	3255

11. PROPOSED BUDGET APPROPRIATED FUNDS ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE C. GRANT	PRIMARY TECH. CODE D. LOAN	E. 1ST FY 79 F. GRANT	E. 1ST FY 79 G. LOAN	H. 2ND FY 80 I. GRANT	H. 2ND FY 80 J. LOAN	K. 3RD FY 81 L. GRANT	K. 3RD FY 81 M. LOAN
(1) EH	B 600	634		434		1484		600	
(2)									
(3)									
(4)									
TOTALS				434		1484		600	

A. APPROPRIATION	N. 4TH FY 82 O. GRANT	N. 4TH FY 82 P. LOAN	Q. 5TH FY ___ R. GRANT	Q. 5TH FY ___ S. LOAN	LIFE OF PROJECT T. GRANT	LIFE OF PROJECT U. LOAN
(1) EH	391				2909	
(2)						
(3)						
(4)						
TOTALS	391				2909	

12. IN-DEPTH EVALUATION SCHEDULED: MM [0|3] YY [8|1]

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

[1] (1 = NO, 2 = YES)

14. ORIGINATING OFFICE CLEARANCE

SIGNATURE: Byron Bahl

TITLE: Acting Mission Director

DATE SIGNED: MM [0|6] DD [2|6] YY [7|9]

15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM [ ] DD [ ] YY [ ]

AID 1330-4 (3-76)

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INSTRUCTIONAL MATERIALS RESOURCE CENTER PROJECT

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SUMMARY AND RECOMMENDATIONS

A. Recommendations

Authorization of a grant of $2,909,000 for Phase II of the project subject to the following waivers and approvals:

1. Waiver of the 25 percent cost-sharing requirement contained in Section 110 (a) of the Foreign Assistance Act of 1961 as amended.
2. Waiver of the policy set forth in Handbook 1, Supplement B limiting procurement of commodities under grant-financed projects with RLDC's to countries included in A.I.D. Geographic Code 941 to permit procurement of construction materials (approximately $500,000) which have their source and origin in countries included in A.I.D. Geographic Code 935.
3. Approval for proprietary procurement of one project vehicle from International Harvester Co., Inc.

B. Summary Project Description

The goal and purpose of this project under the 4-year Phase II remain basically the same as under the initial 18 month pilot phase. The goal is an improved educational program for both primary and secondary school levels through provision of instructional materials and curricula relevant to the society and culture of Lesotho. The purpose is to establish, as a permanent institution within the National Teacher Training College (NTTC), an Instructional Materials Resource Center (IMRC) which will provide materials and curricula for teacher training and for the primary and secondary schools.

Project outputs will center on (1) construction of the physical facility to house the IMRC (which is housed in temporary quarters during Phase I), (2) operation and institutionalization of IMRC technical services, and (3) development of a cadre of trained IMRC Basotho personnel. A.I.D. Project inputs will include (1) four long term technicians (up from two in Phase I), (2) training, (3) materials production commodities and equipment, and (4) construction of the production center and staff housing.

While Phase II retains most of the essential character of Phase I, it would expand the scope of the project, institutionalize the project processes and solidify the progress accomplished to date. In so doing it would continue, first, to develop instructional materials for the NTTC

curriculum itself, (which cannot, in any real sense, be dissociated from the curriculum of the nation's schools); and for selected primary and secondary schools on a test basis prior to final approval for nation-wide use. The second role of the IMRC is to serve as a catalyst in the teacher-training effort at NTTC and in the field. Its coordination of the necessary research, design, production, field-testing and evaluation is to stimulate and direct the raising and resolving of questions concerning what it means to have an effective education program in the rural primary and secondary schools in a developing country.

C. Summary Findings

The analyses undertaken in this amendment have found the project's design for Phase II to be technically, economically, socially, and financially feasible.

Design, testing, and approval of instructional materials is an essential intermediate step in the larger process which commences with basic curriculum design and terminates with the mass distribution of materials to the pupils. The other steps in this larger process are either underway (curriculum development) or are susceptible to resolution through a number of feasible alternatives (mass production and distribution).

The only element of the project which could conceivably have any impact on the environment is construction, but care will be taken to avoid adverse effects. Construction sites on serviced, existing grounds have been allocated, inspected by A.I.D. engineers, and approved. Thus a negative determination as requested in Annex C is in order.

The GOL is firmly committed to the project and has stated its determination to give full support.

1. PROJECT BACKGROUND

Roughly the size of Maryland, Lesotho is a landlocked predominantly agricultural country surrounded by the Republic of South Africa and the recently independent (December, 1976), but generally unrecognized Republic of Transkei, a former South African homeland. The five ecological regions are the lowlands (rural and urban), foothills, Orange River Valley, and mountains (with the latter two regions usually grouped together due to their many similarities). The lowland regions ring the northeastern section of the country, where altitudes range from 5,000–7,000 feet and annual rainfall averages 20–35 inches. The majority of the 1.3 million population lives in this area.

Only about 13 percent of the land surface (971,000 acres) is considered suitable for crop production, mainly in the lowlands, foothills, and the Orange River Valley. The mountain region has only scattered valleys of limited size and is, therefore, mainly suitable for grazing. There are few roads leading into the mountains, notwithstanding recently approved nationwide road construction plans; and it is difficult to gain access to many villages except by plane, horse or mule. In addition to the dearth of primary schools in the mountain regions, there is also a marked lack of health care and social services.

General Education Structure

Formal education in Lesotho began shortly after the arrival of the first missionaries in 1833. Craft schools were established by 1870, and the first technical training institutes in 1906. Since then, mission schools have been almost the exclusive source of formal education. According to 1978 studies, 90 percent of existing schools are administered by four missions: the Lesotho Evangelical Church (with 40 percent of the schools and 41 percent of total enrollments; the Roman Catholic Mission (largest school ownership with 41 percent of the schools and 44 percent of total enrollments); the Anglican Church of Lesotho (with 14 percent of the schools and 12 percent of enrollments); and the African Methodist Episcopal Church – AME, Government, and other nonmission schools representing approximately 5 percent of total schools and 3 percent of total enrollments (see Tables 1 and 2).

Until independence from Britain in 1966, schools were free of Government of Lesotho administrative and academic control. Mission organizations owned and operated nearly all of the schools at the sub-university level. While largely responsible for the country's relatively high literacy rate of over 40 percent, these schools emphasized literacy curricula and instructional programs to the detriment of scientific technical and vocational programs. Ramifications of this policy are evident in the critical shortages of Basotho managers and mid-level manpower in most fields. Since 1966, the Government of Lesotho has made provision for grants-in-aid to mission schools and payment of salaries for both primary and secondary teachers. Legal authority for operation, finance and academic control (e.g. teaching standards, examination procedures, etc.) of the general education system is vested in the Ministry of Education, Youth, Sports and Culture (MINEDUC).

MINEDUC figures indicate a pupil-teacher ratio in primary schools of approximately 50:1 in 1977, a sharp decrease from the ratio of 72:1 in 1965. Ratios are calculated by counting teachers twice if they teach double sessions. The number of students on double sessions is also increasing (See Tables 3 and 4).

Most primary schools do not offer full courses. In most instances, schools offering incomplete courses up to grades 5 to 6 are concentrated in the mountains. Pupils attending these schools must, where possible, change schools for the final year; and there are usually no alternative schools available. Nevertheless, the number of schools providing full courses has improved from 184 schools in 1967 to 418 in 1976. There is also a downward trend in the total number of registered primary schools from a peak of 1,350 in 1972 to a stabilization of approximately 1,080 in 1979. This is due to primary school-age population fluctuations as well as the fact that some schools have ceased operations.

Enrollment has increased at a rate of approximately 1.6 percent per annum in ten years (through 1976) and amounted to about 222,000 in that year. The percentage of school children aged 6–12 years in primary schools is about 72 percent. The proportion of boys to girls has remained steady throughout the decade ending 1976, with girls accounting for approximately 60 percent of total enrollment.

In addition to a shortage of teachers, there is an attrition rate of approximately 7 percent, or a loss of 135 teachers yearly (based on a 1976 AID-financed study). Official Ministry statistics show the qualified teacher annual wastage averaging out to 2.5 percent between 1972 and 1977.

Regarding certification of teaching qualifications, about 30 percent of the 4,235 primary school teachers were "unqualified" in 1976 (2,975 trained and 1,260 untrained). The percentage of "unqualified" teachers declined slightly over the decade ending in 1976 to just under 30 percent from a peak of 36 percent in 1971. It should be noted that since 1976, the percentage of unqualified teachers also includes pre-service students from the National Teacher Training College (see Tables 5 and 6).

A significant education problem in Lesotho concerns the serious lack of adequate primary school facilities, textbooks, and equipment (see Tables 7 and 8). With a largely agricultural national orientation, subjects such as biology, chemistry, health and veterinary science should be more prominent in the secondary schools. However, they too lack proper equipment and teaching aids although not to the degree faced by the primary schools.

Many children receive instruction in open air classrooms and without textbooks and adequate supplies. Of course, with conditions such as these, it follows that there are few libraries for children in the country -- and fewer still with extensive information on Lesotho.

There is a high rate of student attrition. Almost every girl enters primary school, as opposed to only 60 percent of the boys, who traditionally herd cattle, sheep and goats at the pri-

mary school age. According to IBRD Second Education Project figures, girls outnumber boys in the primary cycle at a rate of almost three to two (1977 figures). Moreover, 18 percent of the boys and 10 percent of the girls beginning first grade do not continue to second grade. Only 33 percent of the boys and 51 percent of the girls beginning first grade are likely to reach the seventh grade, and only 15 percent of those beginning first grade continue through secondary schools. Overage students account for 26 percent of total primary school enrollments. This means that a larger proportion of the 13–18 age group (theoretically the secondary-level age group) is enrolled in primary schools (46 percent of the age group) than in general-secondary schools (10 percent of the age group).

This is a serious problem in view of the considerable degree of financial loss in educational investment through unimproved manpower and limited increases in labor productivity. UNESCO educational specialists regard a minimum of four years of schooling necessary to ensure continued literacy and social consciousness. National development is retarded because so few students can continue their education beyond the fourth grade, thereby exacerbating the problem of the lack of trainable manpower in vocational and technical areas.

The general weakness of the education structure in the primary and secondary schools might be summarized by the following factors:

1. a de facto dual administration and authority in the schools by the Government of Lesotho and the various churches, with a consequent lack of coordination and planning;

2. a large proportion of teachers who are still poorly trained;

3. a high student attrition rate with consequences resulting in inadequate manpower training programs for national development and financial wastage in the educational investment that is being made;

4. poorly equipped schools and abbrieviated grade programs in many instances;

5. the continuation of a curriculum which is basically not oriented toward national development, and;

6. the virtual non-existence of adequate instructional materials (maps, charts, posters, textbooks, teacher's guides and educational kits).

NTTC and the IMRC

In light of this situation, the MINEDUC established the National Teachers Training College (NTTC) in 1975[1], of which the Instructional Materials Research Center (IMRC), founded in 1978, is an integral part. Phase I of the IMRC, provided by an AID grant of $472,000, was an integral segment of a long-range MINEDUC curriculum development program. The World Bank, UNDP, UNESCO, UK, Denmark, The Netherlands, the Peace Corps and AID have provided assistance in the overall effort to achieve curriculum reform. National curriculum subject panels have been formed. A math/science center and a language center have been established but with only limited effectiveness due to the lack of research, testing and delivery systems for these educational materials. The MINEDUC has just begun to coordinate more effectively its effort in curriculum reform. Its Curriculum Development Unit is a direct outgrowth of a recommendation made by the National Education Study Commission for the establishment of a centralized curriculum development service within the MINEDUC to coordinate curriculum reform. This Curriculum Development unit will eventually evolve into the National Curriculum Development Center (NCDC), which is to be funded by the World Bank. Its primary responsibility will be the development and final approbation of national curriculums and syllabuses on the primary and secondary school levels.

The NTTC at its founding in 1975 placed under one roof the national teacher education programs, as contrasted to the uncoordinated efforts of the seven former church-controlled teacher colleges, all but one of which (Qacha's Nek) were located in Maseru and entrance into which was often based on the religious or denominiational background of the students. The college faced an immediate two-fold task:

1. to train the majority of teachers in Lesotho who were unqualified or whose previous training required familiarization with new curriculum content and pedogogical methods and

2. to provide quality instructional materials for both the NTTC itself and for those Educational Resources Centers (ERC), at which teachers in training and their supervisors will field test proto-type instructional materials on the primary and secondary school levels.

[1]In addition to the NTTC the MINEDUC is responsible for the academic policy of the primary schools, secondary schools, the Lerotholi Poly-technical Institute (LTI), the Lesotho Agricultural College (LAC), the Lesotho Distance Teaching Center (LDTC), the Commercial Training Institute (CTI), the Lesotho Institute of Public Administration (LIPA), and the National Curriculum Development Center (NCDC) – soon to be under construction.

The NTTC designed a dual purpose instructional program, which identified two major groups of trainees. One group was those trainees who were presently fully employed as teachers and would be serviced by the NTTC through the In-service Teacher Training program. The other group included those trainees who were completely new to teaching or who were teachers who interrupted their careers to function as full time students on the NTTC campus. This group is known as the Pre-service or On-campus Teacher Training Program. Both programs are adminstered distinctly, but both have common and equal access to the College's professional and physical resources, specifically including the IMRC.

The NTTC faculty staffing pattern reflects the dual purpose instructional program. The on-campus tutorial staff is divided into departments representing the subject matter areas taught in the primary and secondary schools. These departments, including Professional Studies, (whose concern is pedagogy), train the students in both the content to be taught and how to teach it. They do this for both major groups of students in quite different ways. For both sets of students, the NTTC faculty bears the major responsibility for identifying important and relevant subject matter to be taught, while at the same time they interpret available instructional materials, textbooks and teacher's guides. The faculty also interfaces with the trainees and the IMRC staff in the design and execution of new prototype instructional materials.

The NTTC In-service Training Program is characterized by two annual periods (one month each) of intensive course work on campus for those teachers who are fully employed. In the intervals between the regular NTTC academic terms the faculty conducts seminars for these students, which are followed up by assignments to be completed in the field and monitored by on-the-site supervisors. These supervisors represent the Field Staff of the NTTC faculty and live at a rural site, which gives them access to visit at least once a week and monitor ten to twenty teacher trainees (in both the pre-service and in-service programs) as they function in their roles as teachers in rural schools.

The NTTC Pre-service or On-campus program is three years long with the second year devoted to a full year's teaching internship assignment to a vacant post in the Lesotho school system. The NTTC faculty meets its instructional responsibility to these pre-service interns through the role of the local field staff supervisors, who monitor and guide their instructional methodology during the given year.

The role of the field supervisor is the key to the in-service teacher training program and the pre-service internship year, and is also the focus of the third major instructional effort of the NTTC, namely instructional workshops conducted at Educational Resources Centers (ERC). It is planned to establish 35 ERC's throughout Lesotho at field supervisors' home locations which will be the loci of a network by which the NTTC will interact with the Lesotho school system. Twelve of these ERC's are now established and the NTTC conducts regular workshops at them, which emphasize the use of instructional materials and pedagogical methods. These workshops are usually preceded by three days of field supervision by 2–4 NTTC faculty members. These faculty members then conduct a week-

end workshop in their subject matter speciality. The field supervisors coordinate the workshop, which is scheduled through the In-service Administration Office and attended by both the pre-service interns and the In-service teachers. These ERC's are to form a network of locations in the rural areas, which will provide the NTTC students with an access to instructional materials in their roles as teachers, which are not normally available to them in the rural schools at which they teach. The Netherlands has provided some funds for the purchase of a limited amount of instructional materials for these centers. It is planned that the IMRC play a major role as contributor to these centers through its designing of appropriate instructional materials in a joint effort of the NTTC faculty, teacher trainees and IMRC staff through actual production of proto-type instructional print and audio-visual materials and by the purchase of some demonstration materials.

The IMRC is physically located at the NTTC campus. Its basic purpose is twofold. Its first objective is to develop instructional materials for the NTTC curriculum itself (which cannot, in any real sense, be dissociated from the curriculum of the nation's schools), and for selected primary and secondary schools. Through the ERC's, schools will use these proto-type materials on an experimental basis for final approval by the NCDC and Curriculum Development Unit of the MINEDUC. The second role of the IMRC is to serve as a catalyst in the teacher-training effort at the NTTC itself and in the field training programs. Its coordination of the necessary research, design, production, field-testing and evaluation of instructional materials is meant to stimulate and direct the questions surrounding the educational philosophy and pedagogical methodology of what it means to be an effective teacher in rural primary and secondary schools in a developing country. The IMRC is a service organization and its main client group is the NTTC faculty and the pre-service and in-service teacher-trainees. The first year evaluation team (PES-March, 1979) confirmed that, as called for in the IMRC Phase I project description, two US instructional materials and curriculum technicians have established an instructional materials resource unit at the NTTC, which has made significant progress in achieving the objectives, goals and targets of the Phase I program. Positive working relations exist with the NTTC faculty and administration and the MINEDUC staff. A temporary physical presence has been established on the NTTC campus where the necessary technical machinery for the design and production of print and audio-visual materials is located and working effectively. Instructional materials have been produced for the NTTC faculty staff itself and a limited number of proto-type instructional materials for primary and secondary schools have been field-tested with pre-service and in-service teacher-trainees at some of the ERC's. As the end of the 18 month Phase I IMRC project approaches, it is apparent that this valuable and effective program would most naturally be followed by a Phase II Project, which would expand the scope of Phase I and solidify the progress it has accomplished to date. The main goals and targets of Phase II are ennumerated in the technical analysis of this paper, but they include more extensive technical expertise in the design and production of instructional materials, a permanent physical plant for the IMRC at the NTTC, a.. expanded participant-training program to achieve the effective localization of the program and the final synthesis of an instructional materials and curriculum development plan for Lesotho's primary and secondary schools by the MINEDUC, NCDC, NTTC and the IMRC.

2. PROJECT DESCRIPTION

Goals and Purpose

The goal and purpose of this project under the 4-year Phase II remain basically the same as under the initial 18 month pilot phase. The project goal is to assist the Government of Lesotho, Ministry of Education in developing an improved educational program for both primary and secondary school levels by providing instructional materials and curricula that are relevant to the social and cultural environment of Lesotho.

More specifically, the project purpose focuses on establishing as a permanent institution within the National Teacher Training College (NTTC) an Instructional Materials Resource Center (IMRC) which will serve two basic functions:

1. to develop within the NTTC faculty, instructional materials and curricula for use in training pre-service and in-service teachers;

2. to participate with other Ministry of Education entities, notably the National Curriculum Development Center (NCDC) and its subject matter panels, in developing curricula and instructional materials for use in the nation's primary and secondary schools. The central role of the IMRC will be to process the syllabuses and curricula drawn up by the NCDC and its subject panels and to develop and field test proto-type instructional materials. These materials are to be field tested by the NTTC teacher interns in actual school instruction during their second year work as teachers in rural schools. The materials will also be used by teachers in the NTTC In-service training program and by the College Field Staff in the 35 rural Education Resource Centers being established by the College. Results will be evaluated and materials may be modified by the IMRC and/or NCDC before being introduced by the Lesotho educational system on a countrywide basis.

It should be pointed out that neither the NCDC nor the IMRC will be equipped to undertake mass production of instructional material which will have been developed and reproduced in limited quantities. At the same time it is clear that the final objective of curriculum development and the testing of new proto-types is to place this new material in the hands of all primary and secondary schools students across the country. For this, both mass production capability and a delivery system will be required. While both of these activities are outside the scope of this project, the MINEDUC is very much aware that this need must be addressed as the next step in the logical progression. Currently many texts are printed in South Africa, a convenient answer, but not a satisfactory long-term solution. The question has been discussed by the MINEDUC with US and British publishers, and low-cost educational printing services in Hong Kong and Singapore have also been investigated. Ideally, however, the Government of Lesotho would prefer to develop an in-country capabi-

lity to reproduce educational material on a large scale, perhaps under a cooperative arrangement with other developing countries in Southern Africa to capitalize on the larger market for English language textbooks. Mass production and distribution appear to have excellent potential for future education projects in Lesotho, with possible financing either by AID as a follow-on to the current project or by the World Bank or another bilateral donor.

Specific Elements of the Project

A. Project outputs can be grouped into three categories:

1. Construction of the physical facility which will house the IMRC;
2. Operation of IMRC technical services;
3. Cadre of trained IMRC Basotho personnel.

Construction of the Center

One of the biggest constraints experienced in Phase I of the IMRC was lack of adequate space and office facilities with which to conduct the project's business, especially training and printing activities. Although the situation has improved slightly in the last few months, in the early stages of Phase I the project staff was moved several times from one inadequate space to another in the NTTC. It became evident both to the IMRC Management and to the project advisers that the establishment of permanent quarters in a professional environment must be a fundamental element of Phase II if the IMRC is to expand and realize the operational and training objectives foreseen in Phase II. Including inflation and contingency, the estimated cost of construction of the Center on a suitable site on the NTTC campus, already approved by the College, is $650,000. A physical description of the Center and procedures for its construction are contained in the Technical Analysis of this paper.

Operation of IMRC Technical Services

The actual operation of the IMRC can be divided into several aspects, which will constitute measurable sub-outputs of the project. These include:

a. The establishment of a systems approach to the development of instructional materials employing logical, sequential steps, coordinated with the work of the NCDC. Elements of such a system would include needs assessments, design of materials, production, distribution, utilization and evaluation. Some of these system elements would become separate sub-outputs of the project.

b. Survey of needs for instructional materials in primary and secondary schools. This survey would be organized and conducted by IMRC staff members through visits to individual rural schools.

c. Development and production of trial classroom teaching aids, such as maps, charts and posters. The IMRC will produce at least 500 sets of such aids in each year of testing. If they are distributed one to a classroom, some 25,000 students could be reached by these aids (based on an average class size of 50).

d. Teacher's guides for syllabuses. At least 600 per year of testing are foreseen, also resulting in a wide impact on students because of the high student/teacher ratio.

e. Prototypes of low-cost 3–dimensional teaching aids, such as abacuses, blocks, weights and measures, etc. Some 50 sets will be produced for demonstration purposes, along with 500 manuals per year of testing to show teachers how to fabricate these teaching aids using local materials.

f. Equipment and instructional materials placed in the 35 NTTC resource centers to be established in rural areas (including 12 existing centers).

i. Workshops organized and conducted both at NTTC and in rural schools on the uses of the new materials. The NTTC-trained interns and in-service teachers, 300 in each category every year, are the link between the NTTC and IMRC as national institutions and the rural school system. Through these 600 teachers trained in new instructional materials, 30,000 primary and secondary school students are directly reached each year and will be exposed to IMRC-produced materials and teaching aids.

Cadre of Trained IMRC Basotho Personnel

Training will be an important element of the project, including training of the IMRC professional staff and support personnel. Present Basotho staff of the IMRC include the coordinator Mr. Mosia Rakubutu, his deputy and instructional designer, Mr. Andrew Letsie, one printer, one typist/composer, two artists , one printing manager and one audio-visual assistant to a Danish expert financed by DANIDA (the Danish Aid Agency). Four of the above are currently financed by UNESCO, and it is hoped that this arrangement will continue by a combined effort of UNESCO and the Government of Lesotho into Phase II. Between now and the end of Phase I in January 1980, four more support staff will be hired from the project budget: a printer, an artist, a collator/binder and a typist/composer operator. All will receive on-the job training at IMRC.

Under Phase II, additional project-funded support staff will be hired: one shop technician, one secretary, another artist, another printer and another binder. In addition to the two

existing Basotho professional staff, three new positions will be introduced: one instructional designer, one research specialist and one production supervisor. These three individuals will all receive advanced academic training in the U.S. in their respective fields and upon their return will serve as counter-parts to the three US advisers in the same professional specialties (see following section on the U.S. TA team).

The objective of this training will be to leave a fully qualified Basotho staff capable of running every aspect of the IMRC operation by the end of Phase II in early 1984 when all of the U.S. TA advisers will have departed.

B. The project will receive the following inputs:

1. Technical assistance;
2. Training;
3. Commodities;
4. Construction;
5. Government of Lesotho Contribution.

Technical Assistance

Because of the increase in all aspects of the IMRC's operation, four U.S. technical advisers will be required in Phase II. Since Phase I was generated with only two US advisers, the PP team critically examined the need to increase this number in Phase II. Originally the IMRC Administrator proposed a total of six US advisers for Phase II, stressing important expansion in the areas of instructional design, production, training of Basotho staff and research. It became evident that in Phase I, the two US advisers have been over-extended with respect to the number of activities they were obliged to cover concurrently. After some negotiating, USAID/Lesotho, the IMRC management and the PP team agreed that there should be four US advisers in Phase II. The reduction from the originally desired number was considered feasible in view of the presence on the IMRC staff of two returned participants with US Master's degrees in Education and Instructional Materials, and a third participant due to return in 1980, also with a Master's degree. The second factor permitting the IMRC to operate with four US advisers was the decision to increase local support staff (see preceding section for details). In Phase I, the two US advisers and Basotho prefessional staff often were obliged to do routine mechanical work, during evenings and weekends, because of the lack of adequate local support staff. Since the NTTC budget will not be able to absorb all these staff increases at one time, a formula has been worked out which gradually transfers the salary burden from the project to the NTTC.

The functions of the IMRC can be grouped under the headings of Administration, Instructional Design (which includes research and evaluation) and Production. The list below of Basotho counterparts for the US advisers shows that all of these major functions will have an adviser and a counter-part training to assume responsibility for them. Job des-

criptions in Annex A give more information on the specifics of each major function and the skills needed for successful job performance by the Advisers and their counter-parts.

Staffing in Phase II and financing sources are summarized in the following tables:

POSITION	PERCENT FUNDED BY		
U.S. TA TEAM	USAID	GOL(NTTC)	UNESCO
Senior Project Adviser (Vogeli)	100		
Production and Graphic Art Adviser	100		
Instructional Designer/ Adviser	100		
Research Adviser	100		
BASOTHO COUNTER-PARTS			
IMRC Coordinator (Rakubutu)		100	
Deputy Coordinator/ Instructional Designer (Letsie)		100	
Instructional Designer		100	
Research Specialist		100	
Production Supervisor		100	
BASOTHO SUPPORT STAFF			
A. Carried over from Phase I:			
1. On Board as of May 1979:			
Printing Manager			100
Artist			100
Artist		100	
Printer			100
Composer operator		100	
Audio-visual Assistant			100

2. Not yet on Board as of May 1979:	PERCENT FUNDED BY USAID	GOL(NTTC)
Printer	50	50
Artist	50	50
Composer operator	50	50
Collator/Binder	50	50

B. New Hires in Phase II

Shop technician	50	50
Secretary	50	50
Artist	50	50
Printer	50	50
Binder	50	50

'The last nine Basotho staff listed in the above chart will be funded on a shared basis from the project and the NTTC budget, according to the following percentage:

Percent Paid By	Year	1	2	3	4
USAID		80	60	40	20
GOL (NTTC)		20	40	60	80

Following the end of Phase II, all staff costs, as well as other operating costs, will be borne by the Government of Lesotho from the NTTC budget.

In addition to the four full-time US advisers, specialized short-term consultants will be required from time to time throughout the project. Estimated requirements are indicated below on a person/month basis:

1. Training consultant to arrange specialised training programs in the US and to conduct on-the-job training – 6 months.

2. Textbook illustration – 2 months.

3. Subject area content experts, i.e. Practical Arts, Professional Studies, Maths/Science, Languages, Extra-mural and Development Studies – 6 months.

4. Audio-visual expert – 3 months.

5. Elementary technology – 1 month.

   Total: 18 person/months at $10,000 = $180,000 plus 4 person/months for project evaluation ($40,000).

Training

Long-term academic training in the US will involve five participants at 24 months each. The preference is for Master's degrees in education and various aspects of instructional material development, but owing to poor preparation in Lesotho and lack of credit transferability, some of this training may be aimed at achieving a B.S. degree in two years. Possibilities also exist for post-master's degree training of senior counterparts. Long term training of 120 person/ months will cost $178,000.

In addition to academic training, 30 person/months of short-term training in the US and in third countries are planned for technical subjects such as repair of equipment (10 people for an average of 3 months each). An amount of $60,000 has been budgeted.

Extensive in-service and on-the-job training will take place throughout the project, using the US TA team and Basotho professional staff as instructors. As all costs will be in local currency (mainly for local travel and supplies), this item, estimated at the equivalent of $5,000 in Rand, will be provided from the Government of Lesotho budget.

Commodities

Fairly extensive equipment will be required to operate the IMRC, especially printing, photo, TV and audio equipment, both for production and training purposes. A relatively large amount of expendable supplies (paper, film, art supplies, etc.) will also be required. A full list of commodities is included in the Implementation Plan of this paper. An amount of $270,000 is budgeted.

Construction

A building to house the IMRC will be built using local private contractors. Construction planning and produres are fully described in the Technical Analysis of this paper. The Center will cost $650,000 to construct, including inflation and contingencies. Because of the acute housing shortage in Maseru, construction of housing on the NTTC campus is considered essential for the four members of the US TA team. Standard Ministry of Works design for expatriate housing will be used, and land has been designated by the NTTC. The four houses, which will cost a total of $212,000 will be reserved for USAID financed advisers as long as any USAID assistance is being provided to the NTTC or IMRC. Later the houses will accede to the NTTC for the use of senior Basotho College and IMRC staff.

Government of Lesotho Contribution

The Government of Lesotho contribution will take the form of land for construction of the Center and staff housing, full salaries of IMRC counter-part staff, a share of the salaries of MINEDUC and NTTC staff concerned with IMRC on a part-time basis, a formula-derived share of the IMRC support staff; costs of in-service training and recurrent costs

for supplies used by the IMRC. The Government of Lesotho contribution for Phase II is estimated at the equivalent of $346,000 or 10.7 percent of total project costs. In view of Lesotho's severe budgetary constraints and its status as a least developed country, a waiver of Section 110 (A) of the FNA normally requiring a 25 percent host country contribution, is requested (see Financial Plan).

3. PROJECT ANALYSES

A. Administrative Feasibility

Host Country Relationships and Responsibilities

This project is basically an institution-building effort. This point can be underscored by an examination of the project purpose and outputs in the Project Description section and the Logframe. The institution being developed, the IMRC, will be responsible for achieving the project's outputs and can be considered the Government of Lesotho's principal implementing agent.

The IMRC is part of the National Teacher Training College (NTTC) and relies on this parent body for the share of its budgetary and staff support which is not provided by the USAID grant under Phase I and II of this project. The NTTC, established in 1975 with UNDP funding, is responsible for teacher training on a national basis and represents consolidation of several previously fragmented teacher training facilities.

For a clear view of how the project will function within the Government of Lesotho's administrative structure, it is necessary to understand where IMRC fits into the process of development and production of educational materials in Lesotho and to recognize the limits of its operational responsibility and authority. The IMRC constitutes an essential intermediate step between basic curriculum development for the country's school system and mass production of texts and instructional materials to be put into the hands of the thousands of individual school children in rural areas throughout the country. Basic responsibility for national curriculum development will rest with the National Curriculum Development Center when it is established under a $7.5 million World Bank (IDA) loan approved in late 1977. The NCDC will centralize and strengthen the various curriculum development activities of the MINEDUC, including the Ministry's current Department of Curriculum Development, the educational radio service, the employment counseling service and the Careers Education and Guidance Program for secondary schools. A principal operating arm of the NCDC will be the subject panels headed by the MINEDUC with membership comprised of NUL, NTTC and other school representatives and Senior Education Officers in each subject area. Based on raw material developed by these panels, the NCDC will develop curricula and syllabuses which will then be turned over to IMRC. While IMRC will have a limited role in national curriculum development, its main function will be to produce prototypes based on syllabuses supplied by NCDC and its panels as well as NTTC faculty-initiated instructional materials. They are being used in some test situations by NTTC interns and in-service teachers in rural schools and through the 35 field testing centers now being established outside this project by NTTC. IMRC will also engage in limited printing of new textual material and teaching aids for use by the 300 NTTC interns and 300 in-service teachers.

Senior MINEDUC officials consulted by the PP team all stressed that the process that traces curriculum development from the idea stage to the classroom is an enormous and complex task requiring multi-faceted skills and inputs too varied to be performed by a single entity, yet requiring careful coordination and close cooperation among participating organizations and their personnel. Hence both the NCDC (World Bank financed) and IMRC (USAID financed) are justified as separate institutions with discrete yet complementary functions.

Aside from NTTC and its parent Ministry, MINEDUC, the other major Government of Lesotho entity involved in the project is the Ministry of Works (MOW), which will have an important role in construction of the Center and the four technicians' houses. Standard Ministry of Works housing plans suitable for this locale will be used for the four residences. The standard design has been reviewed and pronounced suitable by the REDSO PP team engineer and the US Phase I advisers. Regarding construction of the Center, the Ministry of Works presently lacks the capacity to prepare design plans and specifications. The work will be performed by an A and E firm and contracts will be performed on a bid basis by one of a number of competent local building contractors. The Ministry of Works will undertake the role of the contracting agency and will supervise construction through a contract. Although the Ministry of Works is experienced in this type of activity and has the demonstrated capacity to adminster construction contracts, progress is sometimes slower than optimal because of Ministry of Works staff constraints. Both NTTC/IMRC management and USAID/Lesotho are prepared to follow up frequently with the Ministry of Works during both the contracting and construction periods to avoid delays.

The Project's U.S. Advisory Team

The four member U.S. advisory team will be a critical element of the project with respect to both production and training. For reasons explained in the Technical Assistance section of Project Description, the number of project advisers in Phase II must be doubled, from two in Phase I to four. The U.S. staff comprises:

1. The Senior Project Adviser;
2. A Production and Graphic Art Adviser;
3. An Instructional Design Adviser, and
4. A Research Adviser.

The PP team and USAID/Lesotho do not foresee any particular difficulty in recruiting such a team. The Senior Project Adviser (Team Leader) has already been selected – Mr. Barry Vogeli, currently Phase I Technical Adviser. Mr. Vogeli has all of the technical and managerial qualifications for the senior job, and with his intimate knowledge of the project will serve as the U.S. team's link between Phase I and II, since the Phase I Senior Adviser, Dr. Orville Joyner, will be returning to the U.S. in September 1979 at the completion of his present contract. The choice of Mr. Vogeli as Senior Project Adviser has been agreed to by NTTC, the MINEDUC Permanent Secretary and USAID/Lesotho.

A very strong candidate with prior AID overseas experience appears to be available for the position of Production and Graphic Art Adviser and several prospective candidates have tentatively been identified as possibilities for the remaining two positions. The services of the two advisers under Phase I were provided under an OPEX contract administered by the International Institute of Education (IIE). A similar arrangement is proposed for Phase II, although the administering agent has not yet been selected by AID/W.

It is deemed feasible to assume the remaining TA team can be recruited rapidly following project approval for Phase II, permitting an arrival of January, 1980 in Maseru. Since the assignment is in an English speaking country with an excellent climate and professionally satisfying working conditions, recruitment is not expected to present a problem.

B. Technical Analysis

Operation of the IMRC

To accomplish the goal and purpose of the project in Phase II a number of technical objectives must be met. The first major objective is the establishment of a sound and workable system for developing, producing and evaluating prototype instructional materials. The establishment of this system is a primary responsibility of the four U.S. technical assistance advisers. They will offer the necessary expertise in planning, administration, instructional design, production, research and evaluation – all essential elements of the system.

The establishment of a definitive system will not occur at the outset of Phase II, but rather, it will evolve as the project progresses. This will be a long and complex process as the IMRC must further its working relationships with the NCDC and other MINEDUC agencies, as well as within the NTTC. The faculty and students of the NTTC will play important roles in the evolving system. It is expected that the faculty will contribute significantly to the development of new instructional materials and that the students will serve as a convenient vehicle for testing, both at the college and in the Intern and In-service programs.

Another factor in the evolution of the system is the training and experience of the Basotho staff. As the capabilities of the staff increase through training, it will be necessary that the system be modified accordingly. Therefore, on-the-job training for counter-parts and support staff is another important responsibility for the U.S. technical assistance advisers.

To develop the system through a logical progression of stages, a series of pilot instructional materials sub-projects has been identified by the IMRC for Phase II. These have been selected and ordered with respect to their scope and the degree of difficulty and complexity concerning their development and production. They are:

1. A prototype set of wall charts, maps and posters and a manual of use for primary teachers.

2. A prototype kit of three-dimensional teaching aids and a manual for construction and use.
3. Prototype teachers' guides for newly revised primary syllabuses, which are prepared in cooperation with the subject panels of the NCDC.
4. Prototype textbooks and teachers' guides in selected content areas.

The intended sub-projects are naturally open to modification dependent on needs and priorities arising as Phase II progresses.

Another major technical objective is to build and equip a physical plant at NTTC to produce a wide range of instructional materials, both printed and non-printed. The largest part of these will be printed materials; therefore, a well-equipped printing plant is essential to the project purpose and the implementation of Phase II.

Before the establishment of the IMRC, the NTTC had little printing equipment and most of what did exist was not functioning properly. Thus, there were problems in meeting even the limited needs of the faculty and administration. In Phase I the IMRC significantly increased the printing capacity at the NTTC through re-organization, the purchase of equipment and on-the-job training of the local staff. Not only was the capacity increased, but the quality of the finished product was greatly improved. As a result of these improvements the IMRC has experienced a tremedous increase in the demand for its services. Presently this demand has grown to such proportions that there is difficulty in maintaining a realistic production schedule. Therefore, an important part of Phase II will be the addition of more printing equipment and the staff to operate and maintain it. Only by these means will the IMRC be able to cope with the present production demands and at the same time expand its capacity to produce ample quantities of prototype instructional materials for testing purposes.

Printing, while being the largest and most traditional medium for instructional materials, is not the only one employed by the IMRC. Non-printed materials include three-dimensional teaching aids, audio and video tapes, slides, overhead transparencies, and film. It is intended in Phase II that instructional materials in each of these media will be developed and used to whatever extent is practical. Since the absence of electricity presents a problem in the rural areas, the development of instructional materials for those schools will be limited to printed and three-dimensional materials. However, materials for use at the NTTC and in selected schools could effectively employ any of the media. To increase its capacity to produce non-printed instructional materials in Phase II, the IMRC proposes to equip a workshop to develop low-cost three-dimensional teaching aids and to purchase additional art, photographic, audio and video equipment.

The process of development, production and evaluation of instructional materials consists of many diverse, but interrelated technical elements. The proper coordination of these elements is essential. In Phase I, the coordination effort was greatly hindered by the lack of a central facility to house all the working components of the IMRC. The construction of a

central building for the IMRC is an important feature of Phase II. Not only will this facilitate the coordination of all aspects of the project, but it will also provide sufficient space for expansion and addition of new production components. Until the completion of such a building the IMRC cannot in reality be termed a "center".

Construction and Engineering

a. Description

Presently IMRC's physical facilities are housed in several NTTC buildings and the College needs this space for its own requirements. In addition, the present facilities are inadequate in size and do not allow the smooth functioning of each element due to cramped space and ad hoc space planning. The IMRC Phase II proposes to construct a separate building for IMRC activities which will have about 13 offices, a conference room, a studio, a graphic arts room, a printing and binding room, a silk-screen room, a process camera room, composing room, work area room, four micro-teaching laboratories, a library, dry photo laboratory, dark-room, and enough storage space for equipment and stationery supplies. Additionally, housing for four U.S. technicians will be required.

b. Engineering Planning

1. Sites for the IMRC and housing have been designated and reserved. The IMRC is located within the NTTC campus and the housing site adjoins the existing NTTC housing complex close to the campus (see annexes E and F). Both sites have been inspected and approved by AID's engineer. The IMRC site is gently sloping and the housing site is more severely sloping. Utilities (water, power, and sewer) are available close to both sites. The IMRC building site has an existing power line running through the site which will require relocation to permit siting of the Center. All utility connections and site adaptation drawings for the Center and houses will have to be designed.

2. The Ministry of Works presently has a staff constraint in its Architectural Branch and would be hard put to design the proposed IMRC within the time constraints necessary for efficient implementation of the project. It is accordingly proposed that an Architect-Engineer (A-E) firm be contracted for preparation of plans and specifications and bid tender documents for the IMRC building. Also, the same or another A-E firm is proposed under contract to provide supervision and inspection services at the time of construction. (A local firm is proposed for S & I services should the designing firm be from the U.S.).

3. Standard Government of Lesotho plans and specifications for housing are available and these have been used to build houses for other prior USAID financed projects and for other donor projects as well. Site plans and utilities to service the housing

site will have to be designed, however, which would include site adaptation of the standard housing plans, if utilized. These standard plans are titled the "Pitso Mark IV and Mark V Houses".

4. USAID has previously used the Fixed Amount Reimbursable (FAR) procedure for construction of project houses in Lesotho, utilizing services and procedures currently practiced by the Ministry of Works. Therefore, utilization of the FAR procedure for construction of the houses is planned for this project.

   The host country contracting/FAR procedure is the first choice for design and construction of the housing. Also, it is anticipated that the contract for the IMRC facility will be a Government fixed-price contract for which AID will reimburse the Government for progress payments made to the contractor. However, staffing constraints within the Ministry of Works may require an alternative procedure, a direct AID contract. Depending on subsequent evaluations, a new type of development may be necessary where AID and other donor housing would be commonly sited to maximize land use of currently available housing sites. Because of the above possibilities, funds are budgeted in this proposal for (1) contract for site development, (2) contract for construction, and (3) contract for supervision and inspection services. These special factors will result in higher than usual costs of construction. (See Annex F for more details).

5. With regard to the IMRC facility, funds for its architectural design in the amount of $50,000 have been included in this project. This amount provides for topographical mapping, site and soils investigations, the design of the facility, and bid tendering documents. A lesser amount of $10,000 has been programmed for a contract for supervision and inspection services during construction of the facility. The amount budgeted for design is necessarily higher because a U.S. A-E firm may be engaged to provide design services.* It should be understood however, that there are at least two Code 935 and one Code 941 A-E firms currently practicing in Lesotho which are integral parts of the local economy and a waiver may possibly be needed by USAID to permit a consideration of these firms on an equal basis with U.S. firms depending on their qualifications for the IMRC facility as determined by evaluation of their experiences and resources. There are time constraints in the project for implementation and the completion time for the design feature will be a major consideration factor in the selection of an A-E firm.

6. Upon completion of bid tendering documents by the A-E firm and approval by AID, tendering documents will be furnished to the Ministry of Works which will advertise for bids and award a construction contract for the IMRC facility. Supervision and inspection of construction will be performed by an A-E firm under contract. Based on consultation with the Ministry of Works' Chief Architect, there are three to four local construction firms capable of constructing this type facility. With some exceptions such as sand and aggregate, all building materials including cement and

*a section 8a set-aside is USAID/Lesotho's first choice.

steel are procured by local contractors from the Republic of South Africa, the only economical and feasible supply source. A waiver for all building materials to permit procurement from Code 935 sources is, therefore, considered a requirement and is requested for this project.

7. All houses will be based either on the Ministry of Works' present standard Pitso Mark IV and V housing or on new designs which would be subject to AID engineering approval.

c. IMRC Building

- The IMRC building will be constructed as a two-story reinforced concrete frame structure with curtain brickwalls due to site constraints. The roof will be of timber trusses with clay roofing tiles. Special acoustic, lighting and air temperature features will be required for some rooms such as studio, printing and binding room, composing room, etc. (See Annex E for detailed description).

C. Economic Analysis

This type of project is among the most difficult kinds on which to undertake a meaningful economic analysis. In general, education projects are considered "soft" when attempting to quantify benefits. Nevertheless, where a project offers a complete unit of instruction or training, the cost of the training can be measured on a per student basis and compared to costs of seeking alternative methods of acquiring similar training. In this project what is offered is not largely a training package, except to the staff of the IMRC itself and certain teachers of the NTTC who may receive training in design of instructional materials. The main thrust of the project is to provide the second link in a three-part chain of educational materials development (described in Section A, Administrative Feasibility).

The Social Analysis discusses the benefit incidence resulting from project outputs. Although difficult to measure in economic terms, the benefits are broad and potentially far reaching, particularly when related to the cost of each output. For example, a single low-cost poster or wall chart would reach a minimum of 50 student (average class size). The project expects to produce some 500 sets of maps, charts and posters in each year of testing. Assuming efficient distribution, these teaching aids could reach at least 25,000 students, most of them in primary schools. Such visuals aids, especially in schools with very few textbooks, can greatly increase a child's understanding of a mathematical concept, the historical setting of some important event, etc., on a very low cost per student.

Other parts of this paper describe the very difficult conditions faced by schools in Lesotho, especially at the primary level. Despite a relatively high historical literacy rate for Africa (40 percent), Lesotho's Mission-supported primary school system suffers from several crippling deficiencies. Foremost among these problems are:

1. lack of funds for development and operating expenses;
2. lack of adequate physical facilities;
3. lack of trained teachers;
4. lack of instructional materials and teaching aids.

This project directly addresses and will have a major impact in alleviating the last two of these problems. It is reasonable to expect that the quality of primary education will be raised over a period of years through the project's efforts to upgrade teachers' skills and to introduce specially designed instructional materials and aids. The difference that exposure to the work of the project can make to a typical student is, of course, impossible to measure quantitatively, but in general we can assert that practical concepts learned through teaching methods and materials developed under this project, not only in academic subjects, but also in agriculture, conservation, health and village life, can achieve a significant impact in the economic and social life of the majority of students who will live their whole lives in rural areas.

As previously noted, the objective of this project is the development and testing of educational materials on a limited scale, not the mass production and distribution of textbooks to reach each student individually. The latter activity, however, represents an excellent potential for a follow-on project, and the establishment of an educational press in Lesotho would appear to offer a very favorable benefit incidence when compared to the alternative of importing costly textbooks published and printed abroad which may not be relevant to the Lesotho environment.

However, since mass production of texts is beyond the scope of this project, our analysis must be limited to the actual impact to be achieved by the IMRC in the next 5 years. The IMRC's link with the nation's school system is through the 300 NTTC in-service teachers and 300 NTTC interns who teach school full time each year, and through the 35 educational resource centers being established in rural areas by the NTTC. With an average class size of 50, these 600 teachers and the IMRC- developed instructional materials they employ will reach at least 30,000 primary and secondary school students per year. The 35 NTTC resource centers which test IMRC materials should reach at least an additional 5,000. Following are calculations on a per student basis, of both the capital costs of the project (AID and Government of Lesotho), and the recurrent costs to the Government of Lesotho during and after the project. Since most capital costs are provided by a USAID grant, the critical factor for continued success of the project is the ratio representing project coverage (benefits) to the Government of Lesotho's recurrent costs. As long as this figure remains favorable, the Government of Lesotho will be encouraged to continue to support the IMRC.

Project Costs Per Student Reached

1. Capital costs

Technical services, training, commodities and construction for entire project:

(in $ 000)	AID	GOL	TOTAL
Phase I	472	106	578
Phase II	2,909	346	3,255
	3,381	452	3,833

Student coverage in 4 years:

Year	1	31,000	Students
	2	32,000	
	3	34,000	
	4	35,000	
		132,000	

Total project costs per student, Phase I and II

3,833,000 ÷ 132,000 = $29.04

2. Recurrent Costs to Government of Lesotho

Average recurrent cost of Government of Lesotho per year in next 6 years 1980-1985 (from Table 4 in Financial Plan).

Year	1	2	3	4	5	6	Average
Costs in $ 000	103	71	80	92	99	103	91

Average coverage of students per year over same period 33,000.

Average current cost per year per student

91,000 ÷ 33,000 = $ 2.76

The costs in the tables above are very low, indicating a highly effective cost/coverage ratio. It must be remembered of course that the entire education of the more than 30,000 students per year covered is not being provided by this project. Therefore, what we are measuring is the incremental benefit of better trained teachers and better instructional material on these students, as compared to the education they would have received without the

IMRC program. Although a monetary value cannot objectively be placed on this incremental benefit, it is reasonable to assume that it is worth $26.28 per student to AID over the life of the project and a mere $2.76 per student per year to the Government of Lesotho on a recurrent cost basis.

D. Social Analysis

Historically, Lesotho has suffered from a general education system poorly suited to providing those teaching and learning experiences required to improve the quality of life of the majority of Basotho youth. The 1976 MINEDUC Education Study Commission Report noted that school curricula were designed chiefly to achieve literacy and further schooling. Government of Lesotho efforts to coordinate and improve general curriculum development will be further advanced through the Phase II continuation of AID support to the IMRC.

Spread Effects

As the link between the NTTC and the NCDC, the IMRC will serve as a resource for processing the syllabuses and curricula drawn up by the NCDC. A real project strength stems from the fact that development and field-testing of prototype teaching/learning materials has been proved culturally feasible during the project's first phase at 12 of the NTTC Educational Resource Centers (ERC). With the NTTC's planned establishment of a total 35 such centers (many near the more isolated schools), the IMRC will:

1. be able to continue the development of effective systems for determining actual learning needs and learning styles of primary and secondary students; and
2. continue to develop evaluation and feedback systems for a continuous revision of curriculum and instructional materials for the NTTC preservice and in-service programs and for the national educational system.

The National Teacher Training College has a direct opportunity to make an immediate impact on the learning experience of teachers and students in primary and secondary schools. The IMRC's location within the NTTC complex will facilitate the upgrading of teacher training so that NTTC graduates will be able to perform more effectively as certified teachers.

It should be borne in mind that women teachers out-number men 2 to 1 (See Tables 9-11). A better trained cadre of women teachers could have a positive secondary spread effect to the extent that girl pupils can identify with their teachers, thereby strengthening their image of women in general and themselves in particular. Despite the present high fall-out rates even girls who do not continue through to Form E (12th grade) will be capable of passing on what they learn to others in their communities.

The NTTC must resolve questions of population density and accessibility of future ERC's. Should they be located within reach of 90 percent of the population (see Map 3) due to cost factors, or should there be an effort to establish the greater number of future centers in remote areas presently suffering from lack of educational facilities and materials? The lowlands, the major agricultural crop production area, comprising one-quarter of the coun-

try's area, are inhabited by 50 percent of the population. The foothills, a mixed farming area are occupied by 30 percent of the population. The remaining, 20 percent of the population lives in the mountain regions where herding is the main occupation.

Incidence of Benefits

Direct beneficiaries of this project are pre-service and in-service NTTC teacher trainees, who will utilize newly designed instructional materials during a one-year internship for second-year students. Other direct beneficiaries include recipients of improved faculty teacher materials at the NTTC. In addition to students at the NTTC and selected primary and secondary students, it is anticipated that curriculum professionals in the MINEDUC and NCDC will benefit from direct association with the IMRC and its programs.

In view of the national manpower constraints, better trained teachers and the provision of appropriate materials in this project amendment should contribute to a reduction of some of the serious problems discussed elsewhere in this paper, including high pupils fall-out rates. This problem, coupled with the fact that low salary scales in the teaching profession tend to encourage more highly qualified students into higher paid Government positions or into better paying teaching jobs in the Republic, seriously inhibits effective primary and secondary education in Lesotho. Coordinated efforts between the IMRC, NTTC, and NCDC to devise and test general education curricula which meet national needs - particularly through an emphasis on agricultural concepts and practically-oriented literacy and numeracy will acquaint the majority of pupils with concepts which should sharpen their basic life skills. It should be noted that arithmetic and English, both requirements for functional literacy in Lesotho, have high failure rates.

Upgrading/restructuring the educational system must address the question of making qualitative and quantitative improvement, so that a cost effective number of students completing primary school will continue through secondary school. Secondary school-leavers in other developing countries tend to provide mid-level skills pools as well as the bulk of students with potential for further technical, administrative, professional and academic training. Again, through formalized linkages with the NCDC's proposed guidance counselling program, it may be possible for the IMRC (through the NTTC's Educational Resource Centers), to devise mechanisms to incrementally match the country's need for higher trained manpower with the output of the national school system. However, it also would be necessary to devise mechanisms geared specifically to women in view of their key roles in the economy, e.g., they comprise the bulk of Lesotho's farmers, cooperative members, agricultural development organization members, primary school teachers, and mid-level staff in the civil service (See Annex I on the social environment).

Participation

The question of who is participating in the decision-making process regarding curriculum content in rural schools (e.g. traditional educational curricula vs. curricula development for life needs in rural Lesotho) is being gradually addressed. The MINEDUC through its subject panels, Pitso's (similar to Town Hall meetings) and various schools themselves are developing curriculum guidelines. The addition to the IMRC staff of a research specialist could be valuable in providing data regarding parents' roles in the formal education process.

Also, this individual, in cooperation with the NCDC staff, should investigate the correlation between high fall-out rates and parental attitudes – especially in the more remote areas – toward the length of time children should remain in school, and the degree to which they might fear their children looking down on Basotho traditions and the parents' lesser education.

Conclusion

The project has been proved to be socially feasible. However, the following should be taken into consideration during project implementation.

1. MINEDUC subject panels were established in 1976 to assist in development of courses of study, syllabus revisions, identification of essential equipment, and monitoring the examination program. Original subject areas were:

    i. languages;
    ii. social and development studies (social studies, music, religion, etc.);
    iii. practical studies (agriculture, home economics, and simple practical skills training); and
    iv. maths and science.

    Panel membership includes representatives of the National University of Lesotho Faculty of Education, the NTTC, the NCDC and some school teachers. In the past a few of these panels (Science and Mathematics and Social Development Studies) have been more active and functioned more effectively than others. In the future the IMRC expects to be a catalyst for all the Subject Panels by providing prototype instructional materials, research data and suggestions for curriculum development.

2. There is an office of the inspectorate within MINEDUC charged with overseeing the adminstration of all schools, to assure proper content and provide feedback on educational conditions. The twin problems of high student fall-out and low quality manpower output are exacerbated by an inadequate school inspection system. According to one informant there are only five field staff inspectors for Maseru District schools, and two for each of the eight other Districts. One study suggests that a more balanced development of school self-help projects, for example, might be achieved through developing other methods of identifying priority needs. It has been found that mountain schools do not always respond to letters and circulars from the MINEDUC advising them of various projects. The Ministry tends to award resources to those schools responding to information circulars regardless of their location or ownership. Future resources should be allocated by establishing priorities on a needs basis. This can only be equitably achieved by a greater number of site visits by more inspectors – something which is not likely to occur given the continual budgetary constraints.

3. Generally speaking, NTTC has not had a great deal of administrative autonomy, i.e., hiring for all staff positions requires approval by the MINEDUC as well as the Civil Service Board.

4. The third problem outside direct project control relates to the employment of IMRC staff and selections for participant training. All staff must be approved by both the

MINEDUC and the Civil Service Board. Candidates for participant training are normally approved by the National Manpower Development Secretariat. Due to these facts, delays can and do arise in the selection of candidates for employment and participant training, as well as the synchronization of Implementation Plans.

E. Environmental Concerns

As an education and training activity, this project is environmentally neutral. An abbreviated Initial Environmental Examination is attached as Annex C recommending a Negative Determination.

4. FINANCIAL PLAN

Summary

The total USAID cost of this project is $3,381,000 of which $472,000 is represented by the first phase. Phase II, as described in this PP, will be financed by a USAID grant of $2,909,000. The total GOL contribution will be $452,000 ($106,000 in Phase I and $346,000 in Phase II.

GOL Budget Analysis

Lesotho is on the UN's list of "Least Developed Countries" and as such is severely constrained with respect to budgetary resources. The entire GOL budget in 1977/78 was only $58 million, among the lowest of any country in the world. For this reason it is virtually impossible for the GOL to bear a 25 percent share of development project financed by AID or other donors. In the case of IMRC, the GOL contribution is 11.8 percent of total costs overall, and 10.7 percent of Phase II if considered separately. Almost half of this represents salaries of Basotho staff working in the IMRC on a full time basis, of whom there will be 20 when Phase II gets underway. In view of the low local pay scale, the human resource contribution of the GOL will be much greater than its financial contribution. Nevertheless a waiver of section 110 (a) will be necessary and is hereby requested.

The GOL budgetary trend and the share of it devoted to education can best be represented by the following table:

TABLE 1

TRENDS IN PRIMARY TEACHERS' SALARIES
EDUCATION BUDGET AND TOTAL GOVERNMENT
BUDGET – 1974/75 – 1977/78

	1974/75	1975/76	1976/77	1977/78
Primary Teachers' Salaries (in U.S. Dollars)	2,584,359	3,842,546	4,202,664	4,702,317
Total Education Budget (in U.S. Dollars)	5,110,800	7,595,663	8,432,685	10,482,111
Primary Teachers' Salaries as Percentage of Education Budget	50	51	50	45
Total Government Budget (in U.S. Dollars)	22,610,000	33,879,419	47,998,272	58,198,080
Education Budget as Percentage of Total Government Budget	23	22	18	18

Source: Ministry of Finance and Ministry of Education, Maseru.

TABLE 2

SUMMARY COST ESTIMATE
AND FINANCIAL PLAN
(US $ 000)

	AID		GOL		TOTAL	
PROJECT INPUTS	FX	LC	FX	LC	FX	LC
1. Technical Services	1,500	39	–	218	1,500	257
2. Training	238	–	–	5	238	5
3. Commodities	120	150	–	80	98	252
4. Construction	–	862	–	43	–	905
Sub-Totals	1,858	1,051	–	346	1,836	1,419
Totals	**2,909**		**346**		**3,255**	
Percentage	**89.3**		**10.7**		**100**	

NOTE: Inflation and contingencies inluded in line items.

TABLE 3

PROJECTION OF EXPENDITURES BY FISCAL YEAR (US $ 000)

AID INPUTS	Fiscal Year 80	81	82	83	84	TOTAL
Technical Services						
4 Long-term Advisers[1]	240	320	320	320	80	1,280
Consultants	60	80	30	10	–	180
Evaluation	–	–	30	10	–	40
Local Staff	15	12	8	4	–	39
Sub-total	315	412	388	344	80	1,539
Training						
Long-term[2]	20	61	71	26	–	178
Short-term	20	20	10	10	–	60
Sub-total	40	81	81	36	–	238
Commodities	135	95	27	13	–	270
Construction						
4 Houses	212	–	–	–	–	212
IMRC Facility	404	246	–	–	–	650
Sub-total	616	246	–	–	–	862
TOTAL AID INPUTS	1,106	834	496	393	80	2,909

[1] All four advisers are scheduled to start in January, but at least one may start sooner if recruitment can be expedited.

[2] Based on an average annual training cost of $17,500, with two departures in May, 1980, one in September, 1980, two in September 1981 and each of the five long term participants scheduled for a two year academic course.

TABLE 4

PROJECTION OF EXPENDITURES
BY FISCAL YEAR
(US $ 000)

GOL INPUTS	Fiscal Years 80	81	82	83	84*	85*
Staff Costs						
Professional Staff	28	30	30	31	32	32
Support Staff	17	21	25	28	32	32
Staff Travel & Per Diem	2	2	2	2	2	2
Training						
In-service	1	2	1	1	–	–
Supplies & Maintenance						
Paper, Supplies	10	12	16	22	25	28
Maintenanace & Utilities	2	4	6	8	8	9
Construction						
Land	15	–	–	–	–	–
Temporary Office Space	28	–	–	–	–	–
TOTAL GOL INPUTS	**103**	**71**	**80**	**92**	**99**	**103**

** 1984/85 are added to show GOL recurrent costs in post-project years.

TABLE 5

PROJECTION OF AID OBLIGATIONS
BY FISCAL YEAR
(US $ 000)

AID INPUTS	Fiscal Years 79	80	81	82	TOTAL
Technical Services	434	387	327	391	1,539
Training	–	100	138	–	238
Commodities	–	135	135	–	270
Construction	–	862	–	–	862
TOTALS	434	1,484	600	391	2,909

TABLE 6

COSTING OF INPUTS/OUTPUTS
(US $ 000)

	OUTPUTS							
	No.1		No.2		No.3		TOTAL	
INPUTS	AID	GOL	AID	GOL	AID	GOL	AID	GOL
Technical Services	10	–	1,163	174	366	44	1,539	218
Training	–	–	–	–	238	5	238	5
Commodities	15	20	240	50	15	10	270	80
Construction	650	22	160	20	52	1	862	43
TOTALS	**675**	**42**	**1,563**	**244**	**671**	**60**	**2,909**	**346**

NOTE: OUTPUTS

No.1 Construction of IMRC Building
No.2 Operations of IMRC
No.3 Cadre of Trained Local Staff

5. IMPLEMENTATION PLAN

Many of the arrangements for project implementation have already been described in the Technical Analysis and Administrative Feasibility sections of the PP. The respective roles of the various GOL entities involved (MINEDUC, IMRC, NTTC and NCDC) have been explained in some detail and need not be repeated here. In this section, anticipated implementation issues will be examined and a tentative schedule of project events will be presented, as well as a procurement plan for the project's commodities.

Implementation Issues

Construction of the Center is estimated to require about one year. This poses no operational problems, since the current temporary space provided to the IMRC by the Teachers College can be retained until then. It means, however, to avoid storage problems, that the ordering of certain equipment should be timed to ensure that its arrival will coincide with the Center's opening.

The timing of the construction of housing for the four US advisers is more of a problem. It is hoped that the three new advisers will be able to arrive in Maseru by January 1980 when they will be needed to assume their duties at the beginning of Phase II. It is unlikely that the houses can be completed before the middle of 1980 at the earliest. This means about six months of temporary housing will be required for three advisers (the team leader, Mr. Vogeli, a holdover from Phase I, already has housing). In view of Maseru's dire housing shortage, this will require careful advanced planning on the part of the team leader and USAID/L to ensure that temporary houses or apartments are located. Funds are available within the contract amount allowed for the advisers to cover the costs of temporary housing.

Procurement Plan

The unique nature of Lesotho's geographic location (surrounded entirely by the Republic of South Africa) has a heavy impact on procurement patterns. All of the equipment in Phase I was procured through local agents or from the Republic after appropriate waivers were granted. Not only was this the most cost-effective approach, but in light of the project's short duration (18 months) it was the only way that equipment could have been procured quickly enough to meet the project's operational requirements.

In Phase II, not all of the commodities will be needed during the first year and some can feasibly be procured in the U.S. However, a number of factors still strongly favor local purchase of many items. (Local purchase in the Lesotho context includes the Republic of South Africa, where many of the items procured are of American origin). These factors include electrical current (voltage and cycle), service and maintenance, availability of spare parts, installation and local training of operators and compatibility with existing equipment used by IMRC and NTTC.

Every effort will be made to undertake procurement in the US wherever feasible. This includes much of the photographic processing equipment and TV and audio production equipment, totaling approximately $100,000. Rather than contract with a US procurement agent such as AAPC for this relatively small amount, it is proposed to use the services of the Phase I US Senior Adviser to the project who is familiar with the IMRC's equipment requirements and generally conversant with AID procurement regulations. He will be a project consultant during Phase II and the procurement function would be part of his duties under his consultant contract. A 4-wheel drive vehicle, probably an IHC model, will be procured from the U.S., and proprietary procurement is requested.

Other necessary items will be procured locally as shelf items (those with a value of less than $2,500 each, such as hand tools, typewriters, small film equipment, dryers, etc.).

PROPOSED PROJECT OPERATIONS AND STAFF HOUSING IMPLEMENTATION SCHEDULE

Month/Year	*Implementation Action*	*Responsible Agency*
1979		
June	PP submitted to AID/W	AID/L
	Instructional Materials Workshop for NTTC tutors.	IMRC
July	Project Committee (review and approve project)	AID/W
	Phase I support staff added	IMRC & GOL
	Project authorized by AA/AFR	AID/W
August	Preliminary recruitment of TA team	IMRC & OPEX Contractor
	Complete Phase I school needs assessement	IMRC
	Begin design of trial classroom teaching aids (Wall charts and manual)	IMRC
	Project grant agreement negotiated and signed with the GOL	AID/L
September	Approval of preliminary plans for TA staff housing	AID/L
	Begin IFB documents for TA staff housing	Architects, AID/L & GOL
	Selection of TA team	IMRC, OPEX Contractor & AID/L
	Phase I PES	AID/L
	Phase I Senior Adviser departs	IMRC & AID/L
October	Orders placed for vehicle and certain other equipment	IMRC & AID/L

	Completion and approval IFB documents	Architects, AID/L & GOL
	Begin arrangements for temporary housing for TA team	IMRC & GOL
November	IFB issued to contractor and returned	GOL, AID/L & Contractor
	Tender board approval, analysis and AID approval	GOL & AID/L
1980		
January	Begin construction on TA staff housing	Contractor
	TA team begins to arrive	AID/L
	Phase I participants depart for long-term training	IMRC
February	Request consultants for current year	IMRC
March	Distribute trial classroom teaching aids to NTTC faculty	IMRC
	Intern Supervisors Workshop (for distribution and utilization of classroom teaching aids and resource materials for interns)	IMRC
	Participants depart for short-term training (1st group)	IMRC, AID/L & GOL
June	Participants depart for long-term training (1st group)	IMRC, AID/L & GOL
	Distribution of classroom teaching aids to in-service teachers and instruction in their use	IMRC & In-service office
July	Construction of staff housing completed	Contractors
	Furniture and equipment ordered for new IMRC building	IMRC & AID/L
August	Begin field visits to evaluate use of trial classroom teaching aids	IMRC
September	Participants depart for short-term training (2nd group)	IMRC, AID/L & GOL

October	Begin development of prototype kit of three dimensional teaching aids and a manual for their construction and use	IMRC
1981		
February	Consultants requested for current year	IMRC & AID/L
	Participants depart for short-term training (3rd group)	IMRC, AID/L & GOL
March	Phase II PES	IMRC & AID/L
	Evaluation of first field trial of classroom teaching aids	IMRC
	Intern Supervisors Workshop (for distribution and utilization of trial three dimensional teaching aids)	IMRC
April–May	Assist supervisors in organizing and conducting workshops for interns in construction and utilization of three dimensional teaching aids	IMRC
June	Distribution of manuals for construction and use of three dimensional teaching aids to in-service teachers	IMRC
July	Evaluation of second field test of classroom teaching aids and report to NCDC	IMRC
August		IMRC
September		IMRC,AID/L & GOL
January	Participants depart for long-term training (2nd group)	IMRC, AID/L & GOL
October	Begin designing of trial teachers' guides for revised syllabuses	IMRC & NCDC
1982		
	Mid-term project evaluation	IMRC, AID/L & external evaluation team
	Evaluation of trial three dimensional teaching aids and report to NCDC	IMRC

Produce trial teachers' guides for revised syllabuses	IMRC & NCDC
Distribute and field test teachers' guides	IMRC
Begin design of trial students' texts in selected subjects	IMRC & NCDC
Participant training	IMRC, AID/L & GOL
Consultant services	IMRC & AID/L

1983

Evaluation of trial teachers' guides and report to NCDC	IMRC
Produce trial students' texts in selected subjects	IMRC
Distribute and field test trial students' texts	IMRC
Participant training	IMRC

IMPLEMENTATION SCHEDULE FOR IMRC FACILITY

Month/Year	*Implementation Action*	*Responsible Agency*
1979		
Pre-implementation Action:		
July—August	USAID funds task order for U.S. architectural requirements contractor consultant for short-term assignment in Lesotho. Consultant investigates conditions, prepares definitive concepts and statement of work for design of IMRC building.	AID and AID/W in collaboration with MIN-WORKS/GOL,NTTC, CABHSNG.
Aug.—Sept.	AID/W reviews completed statement of work for IMRC facility design. Selects A-E firm for	AID/W in collaboration with AID/L.

	design (note: Section 8a set-aside envisioned). directly with 8a firm. All negotiations leading to 8a contract conducted.	
Implementation	*(AA/AFR approval of project expected in July and construction available in Nov. 1979)*	
November	Architect-Engineer contract for design of IMRC facility awarded to 8a firm. A-E begins design work.	AID/W
December	Local A-E firm selected for construction supervision & inspection (S&I) services for IMRC facility	GOL, AID/L
1980		
January	Negotiations concluded with S&I A-E. Contract awarded.	GOL, AID/L
February	Final design completed for IMRC facility. Bid tender documents furnished MIN-WORKS/GOL for advertising of construction.	AID/L, GOL
March-April	Bids received by GOL, evaluated, and construction contract awarded	GOL, AID/L
1981		
February	Construction of IMRC facility completed.	GOL

6. EVALUATION ARRANGEMENTS

Phase I

A Project Evaluation Summary (PES) has recently been completed (March 1979), just past the mid-point of the 18 month Phase I. The PES, a USAID/L in-house activity prepared with the full cooperation of the IMRC advisers, NTTC administration and MINEDUC, indicated that Phase I has been successful and has achieved its stated objectives. In the view of USAID/L and the MINEDUC, conditions were favorable to proceed with Phase II. The result was the present REDSO/IMRC team effort to design a Phase II program which will begin in later 1979. A second PES is planned for the end of Phase I in the fall of 1979. Since this evaluation will probably not have any effect on the design of second phase, its main purposes will be to provide a summative documentation of Phase I and to offer suggestions on the implementation of Phase II.

Phase II

Since this is a continuation of the first phase with the same project goal and purpose, a survey of baseline data often valuable for a new project will not be necessary. However, the following evaluation steps are proposed for Phase II:

A. Project Monitoring: USAID/L has the capacity to provide specialized project monitoring on a continuous basis through the Mission's Human Resources and Development Officer (operational and training activities) and the Mission's engineer (construction aspects).

B. Project Evaluation Summary: A PES will be undertaken after construction of the Center has been completed in early 1981, approximately one year into Phase II. This will be done by USAID/L and the project team.

C. Mid-term "Formative" Evaluation: It is proposed that the project's one major full-scale "outside" evaluation be conducted in mid-term, after approximately two years of the four-year second phase. This evaluation will determine whether any directional or operational changes will be necessary for the remainder of the project. Of perhaps even greater importance to be addressed in this evaluation will be the question of whether a follow-on project should be pursued, specifically the possibility for an activity for the mass production of instructional materials in Lesotho as discussed earlier in this paper. The mid-term evaluation will be conducted by a two or three member contract team who would require 4–6 weeks to undertake field investigations and prepare their report. This extensive evaluation could require about $30,000 of the $40,000 budgeted for evaluations for Phase II.

D. Final "Summative" Evaluation: This evaluation would take place at the end of Phase II in 1984. It would be a mission and/or REDSO effort, probably employing the use of one outside consultant (for which $10,000 is budgeted). This evaluation would appraise the accomplishments of the project as a whole and might influence the specific course of action to be followed by a possible follow-on project.

7. CONDITIONS, COVENANTS AND NEGOTIATING STATUS

Conditions Precedent

The Project Agreement will include the following Conditions Precedent: prior to the disbursement of funds for construction of the Center or staff houses, the GOL will furnish evidence satisfactory to AID that suitable land on the NTTC campus has been allocated for the proposed structures.

Covenants

The Project Agreement will include the following Covenants: (1) The GOL will provide five qualified professional personnel as counterparts to the AID-funded US advisers in the specialties indicated in the Project Description; (2) The GOL will provide support staff as indicated in the staffing table in the Project Description and agrees to the 50 percent USAID/GOL financing formula proposed in that section; (3) The GOL will make available quaified candidates for long-term training in the US and will ensure that such personnel are subsequently assigned or retained in positions in the IMRC commensurate with the nature and level of the training received; (4) The GOL will agree to finance all the recurrent costs associated with the operation and maintenance of the IMRC, except those specifically provided for under AID-financing in the project budget; (5) The GOL agrees to provide all necessary coordination among the various GOL institutions concerned with the development of instructional materials, particularly, NCDC, NTTC and IMRC. An Executive Committee will be established within the MINEDUC for this purpose, under the direction of the Permanent Secretary.

Negotiating Status

In the course of designing Phase II, the PP team met three times with Mr. Matsela, the new Permanent Secretary of the MINEDUC and until recently Director of the NTTC, who is thoroughly familiar with the IMRC Phase I operation. One of these meetings included several other senior MINEDUC officials concerned with curricular development and instructional materials, including the departing MINEDUC Permanent Secretary, Mr. Seheri; the head of the NCDC, Mr. Bohloko; and the MINEDUC's Principal Education Officer, Mr. Baholo. The team also met separately with Mr. Monyaki, the Permanent Secretary for Planning, who must approve all foreign-assisted projects. At the final meeting the team circulated a written project summary for Phase II including budget proposals. The project was received enthusiastically by the GOL which urged that Phase II be undertaken promptly as planned.

ANNEXES, TABLES AND MAPS

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

PROJECT TITLE: Instructional Materials Resource Center

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Goal: Assist the MOE in developing an improved educational program for primary and secondary schools with curricula and instructional methods that are relevant to the socio-cultural environment of Lesotho.	Improvements in achievement standard of participating schools. Lower student dropout and repetition rates. Improvements in teacher qualifications and teaching skills.	MOE statistics on rural schools and students MOE and school examination records. NTTC records and performance evaluations of interns and in-service teachers.	Establishment of National Curriculum Development Center (NCDC) will proceed on schedule as part of IBRD loan. Government of Lesotho continues to devote high priority to teacher training and curriculum development with sufficient budget support to cover recurrent costs.

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

PROJECT TITLE: Instructional Materials Resource Center

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Project Purpose: Establish as an on-going institution within the National Teacher Training College (NTTC) an Instructional Materials Resource Center (IMRC) with the following basis functions: (a) Preparing and field testing Instructional Materials for use by NTTC inservice teachers and interns for their own training. (b) Preparing and field testing prototype curricula and instructional materials for primary and secondary schools.	End of Project Status: 1. IMRC Center physically established and in full operation. 2. NCDC panels with NTTC membership functioning effectively as input source in curricula design. 3. IMRC working in close cooperation with NCDC and subject panels to prepare curricula prototypes. 4. NTTC student interns using IMRC instructional materials in rural primary schools.	REDSO or USAID Engineering inspection of center. Records of NCDC panels. NTTC performance records for interns and in-service teachers. Project mid-term and final evaluations.	IMRC will be represented on NCDC Executive Committee regulating work of NCDC and subject panels. NCDC subject panels will operate effectively as source of curricula development input to IMRC. MOE will find means of high-quality, low-cost mass production of successful prototype instructional materials for delivery to nationwide school system.

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

PROJECT TITLE: Instructional Materials Resource Center

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	(magnitude)		
1. Construction of an integrated IMRC building on the NTTC campus with offices, printing facilities, training rooms, graphics and audio-visual studios.	1. Center to be completed in 1981 at cost of $650,000.	Construction contractor's progress reports.	Land now earmarked by NTTC for Center will be officially committed for this purpose.
2. Operation of IMRC technical services:	2. (a) Needs assessment, design of materials, production, distribution, utilization and evaluation.	REDSO/USAID engineer's inspections.	Prototype instructional material developed at IMRC can be applied effectively by interns and in-serves teachers to rural school situation.
(a) Establish systems approach to development of instructional materials.	(b) Maps, Charts, posters; 500 sets per year.	Project evaluations.	
(b) Development and production of trial classroom teaching aids.	(c) 600 per year.	NTTC/IMRC activity reports.	NTTC will open 35 Educational Resource Centers as planned.
(c) Teacher's guides for syllabuses.	(d) 50 sets of abacuses, blocks, weights and measures, etc., and 500 manuals per year.	IMRC Workshops	A cooperative, complementary working relationship can be created between IMRC and NCDC, avoiding duplication competition.
(d) Prototypes of low cost 3-dimensional teaching aids with manual on how to fabricate from local materials.			

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

PROJECT TITLE: Instructional Materials Resource Center

NARRATIVE SUMMARY	OBJECTIVE VARIFIABLE INDICATORS
outputs: (Continued)	(Magnitude)
(e) Development and production of trial printed materials for classroom use by interns.	(e) At least 500 sets of trial printed material per testing year.
(f) Equipment and instructional materials placed in NTTC Resource centers.	(f) About $500 in supplies for each of 35 resource centers.
(g) Instructional Materials designed and produced for use at NTTC.	(g) $30-50,000 in IMRC goods and services to NTTC in first year.
(h) Workshops organized and conducted both at NTTC and in rural schools on uses of new materials.	(h) 30,000 primary and secondary students reached each by interns and inservice teachers using IMRC materials. Another 7,000 reached through 35 resource centers.
3. Cadre of trained IMRC Basotho personnel.	3. 20 Basotho Staff trained including 5 in US long-term academic training.

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

PROJECT TITLE: Instructional Materials Resource Center

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
INPUTS: (USAID)			
1. Technical Assistance -			
- Senior Project Adviser (Operations and Admin.)	Cost of Inputs Phase II $320,000 for all 4 advisers per year 16 person /years of T.A.	Project Accounting and financial records	Government of Lesotho qualified counterparts to each of the US Advisers.
- Printing Production and Graphic Arts Adviser.		NTTC training records	Suitable Basotho candidates can be found and released for long-term training.
- Instructional Design Adviser.		AID/AAG audits.	
- Research Adviser.		Project Evaluations	Qualified local contractor available for construction of Center Ministry of Works lists 49 local constructions firms.
- Short-term Consultants.	18 p/m. = $180,000 4 p/m. evaluations = $40,000	IMRC Workshop Evaluations.	
- Local Staff	$39,000 = 50% Share of 9 persons.		
2. Training Long-term academic	5 persons for 2 years each = $178,000		
Short-term technical.	10 persons for 3 months each = $60,000.		

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

PROJECT TITLE: Instructional Materials Resource Center

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs: (USAID) Cont.			
3. Commodities and Equipment	$270,000		Government of Lesotho will provide inputs in budget and in kind as planned.
4. Construction - Building to house IMRC	$650,000		
4 houses for project advisers	$212,000		Returned participants will be assigned to IMRC professional staff.
	Total $2,909,000		
Inputs: (GOL)			
1. IMRC Staff	$218,000		In Phase II UNESCO will continue to suppoert 4 Basotho Staff presently in IMRC (Government of Lesotho has agreed to fund these employees when UNESCO AID ends).
2. In-service training	$5,000		
3. Supplies and maintenance	$80,000		
4. Land, temporary offices	$43,000		
	Total $346,000		

ANNEX B - IMRC ORGANIZATIONAL CHART AND
TECHNICAL ASSISTANCE TEAM JOB DESCRIPTION

Senior Adviser

The Senior Adviser will be responsible for the design and implementation of an operation which will require the services of up to 20 people involved in instructional materials development, design and production. Responsibilities will include giving direct administrative and supervisory guidance to IMRC personnel including the other U.S. advisers and the Basotho staff. The successful merging of all the project sub-systems internally, and with the needs of the College and NCDC, externally, will necessarily require the phased integration of human and physical resources. A building will be constructed, staff must be added, and a training program for old and new staff devised, equipment must be developed so that ideas may flourish. This person will be responsible for maintaining effective liasion with USAID/Lesotho as well as with the Permanent Secretary for Education and other Ministry sections concerned with curriculum and materials development.

This adviser will work on a counterpart basis with the IMRC Coordinator. These two people will be responsible to the NTTC Director in all routine day-to-day operations but will be expected to ensure that IMRC plans and developments are coordinated with national curriculum efforts. It is essential that the IMRC serve both a teacher training function and have a direct positive influence on curriculum and its implementation in Lesotho's primary and secondary schools.

Production and Graphic Arts Adviser

This Adviser will be concerned primarily with production associated with the print medium. This includes graphic art, textbook illustration, process camera work, and all phases of printing and binding. IMRC printing production capacity is designed to produce numbers of copies adequate for prototype testing. Large maps and wall charts will be produced by silkscreening, under this Adviser's supervision. More than half of the IMRC staff is involved in production, but many are inexperienced and untrained. One major responsibility of this adviser, will be to devise training programs for the production staff by providing on-the-job training and by identifying individuals for overseas training programs. A new building will be constructed for Phase II of the IMRC project and this Adviser will have a major responsibility in supervising the construction since much of the building's area is for production. The printing process being used in the

the instructional process and its application in developing countries. The person selected should be familiar with procedures for evaluating materials in terms of their responsiveness to identified goals and objectives as well as their applicability and usefulness in effecting curricular change.

Instructional Design Adviser

The Instructional Design Adviser will work with Basotho educators in the NTTC, the IMRC, the Ministry of Education, and at times, with other educational agencies. This person will work in a pivotal and sensitive position with regard to interpretation or adaptation instructional materials which are relevant to Lesotho's social and economic goals as expressed in the NTTC curriculum and the syllabuses for the subjects taught in the primary and secondary schools. Since both the NTTC curriculum and the syllabuses will be in a state of development themselves, the materials designed developed and tested by the IMRC in cooperation with others will influence not only the curricula but the curriculum development process itself. A secondary task will be to offer advice and assistance on the principles and practices of applied instructional design. On a daily basis, it is anticipated that this adviser will work with NTTC faculty and IMRC staff on the development of materials to be used in NTTC classrooms and materials which can be used on a prototype basis by NTTC interns in Lesotho's schools. The IMRC will produce, distribute and evaluate these materials for further refinement or recomendation to the Ministry.

A full range of media production facilities will be available in the IMRC, but media utilization is constrained in Lesotho's schools by limited financial resources and the lack of electricity in the rural areas. Exphasis on print materials is therefore mandated, but does not exclude charts, maps and battery powered media.

Distribution will be a function of the IMRC, carried out through Regional Educational Resource Centers which will serve the College's interns and in-serve students and which will be supervised by College Field Staff.

The IMRC advisory staff will include an adviser for research. The Instructional Design Adviser need not have strong skills in research design but will need to work closely with the research staff in the evaluation IMRC-produced materials.

IMRC is offset. Associated equipment includes electronic composer with memory, process camera, PMT materials and processor, electrostatic master maker, fifteen station automatic collator and power flat/saddle stitcher and power paper cutter.

The IMRC produces day-to-day instructional material (handouts) for the NTTC faculty and administrative communications (memos and reports). This includes end-of-term examinations and instructional materials for the in-service program. This Adviser will need to devise procedures and controls, (economic, administrative and pedagogic in nature), which will enable the IMRC to continue providing this valuable function, capilatizing on this professional contact will work toward the long-term goals of the IMRC project, particularly in the area of instructional planning.

The Production Adviser will work closely with the Instructional Design staff, particularly in graphic design of materials and in the scheduling of their production.

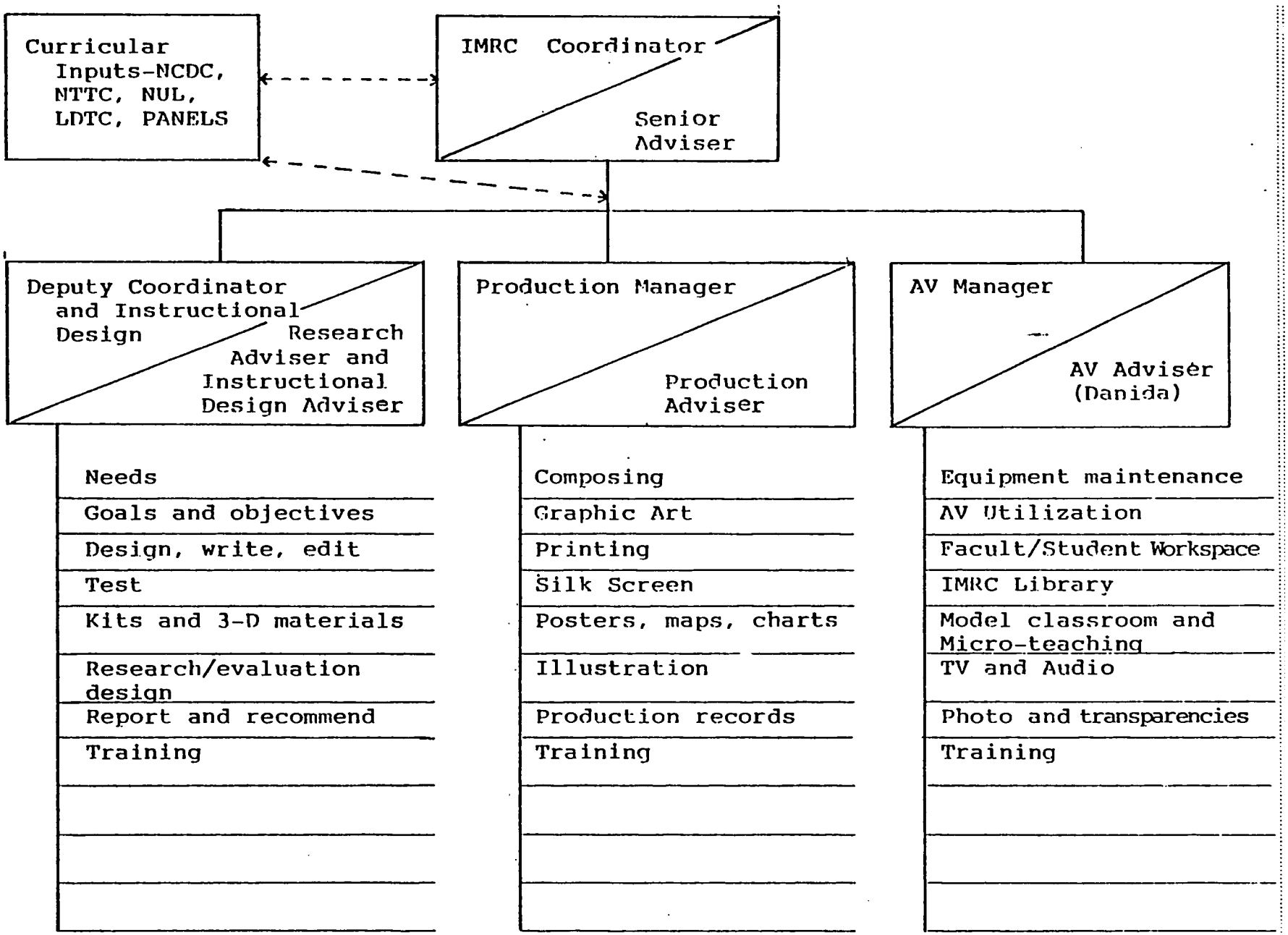
Provision has not yet been made in Lesotho for the mass production of instructional materials. The Ministry of Education recognizes the need and it is likely that the person selected for this position will be called upon to advise the Government of Lesotho on the merits of various possibilities open to them, particularly in the area of printing textbooks.

Research Adviser

The Research Adviser will be responsible for gathering and interpreting data on the effectiveness of materials designed and produced by the IMRC. A further duty will be to serve as adviser to the Basotho IMRC staff person assigned to research. Tasks will include the gathering of baseline data, choosing or creating a research/evaluation design applicable in and to the College and Lesotho school system which will yield useful information on materials' effectiveness and interpreting the data. The Adviser and local counterpart will work closely with the Instructional Design staff, performing the evaluation functions of instructional design.

Much of the job description for the Instructional Designer is relevant to this position. It is expected that these two advisers will have many of the same skills and the same understanding of

ANNEX - B - IMRC ORGANIZATIONAL CHART AND TECHNICAL ASSISTANCE TEAM JOB DESCRIPTIONS.



ANNEX C

INITIAL ENVIRONMENT EXAMINATION

Summary Project Description - The purpose of this project is to establish an institution, the IMRC, within the National Teachers Training College which will prepare and field test prototype curricula and instructional materials for use by the NTTC in their own training courses and in primary and secondary schools throughout the country. Project outputs will include:

(1) technical assistance in operation of the IMRC,

(2) training of the Basotho staff and

(3) construction of a Center to house the IMRC and residences for the 4 US advisors.

Inputs - The only element of the project which could conceivably have any impact on the environment is the construction aspect, but care will be taken to avoid any possible adverse effects. Sites for both the center and houses have been allocated by the NTTC and have been visited and approved as suitable by REDSO's PP team engineer. All utilities, e.g. water, electricity, sewerage, are available at the proposed site. Access to the site is a paved road. The proposed site has been approved by the Land Survey and Mapping Division of Lesotho for construction purposes. The site for the construction of IMRC Center is devoid of trees and other structures and is gently sloping in nature. The site for proposed houses has some bush growth and a few scattered trees. The site has a steep gradient. Split level construction is recommended, maximizing the use of the natural gradient of the ground. During construction some temporary noise pollution normally observed during any construction activity will be unavoidable. No other adverse environment effects are anticipated as a result of this or any other aspect of the project.

The project, on the other hand, will have a positive impact with respect to the cultural and human environment, by improving the educational process in rural areas. The project will increase the level and quality of teaching and learning in these areas and will lead to an improved understanding by Basotho students of their socio-cultural environment.

Recommendation - Based on the above factors, a negative determination is recommended.

Approved: _____

Disapproved: _____

Date: 6/17/74

ANNEX D

SOCIO-CULTURAL AND POLITICAL OVERVIEW

The small and land-locked Kingdom of Lesotho in 1976 supported a population of 1.3 million. 200,000 of this population is considered migrant, working in the Republic of South Africa. 85 percent of the Basotho live in rural areas, earning their livelihoods from farming. There are few natural resources and only 13 percent of the total land area is suitable for crop production (for a population which increases at a rate of about 2.2 percent yearly).

Agriculture - mostly subsistence - contributes about 50 percent of the GDP (per capita in 1975/76 was US $120 and per capita GNP was US $180). Approximately 90 percent of the rural population belong to households that work arable land and/or keep at least five units of livestock (i.e. one cow or horse, or five sheep or goats). 1/ Only 21,000 or 5 percent of the adult farm population is adequately employed - based on either a net income of R150 or fully occupied employment - although Agriculture is the employment for about 85 percent of the resident labor force. The net return to the average farm household from agriculture in 1973-74 was approximately R130.

Manufacturing, mining, construction and public utilities together contribute less than 5 percent of the GDP. Attempts are being made to develop small-scale industries specially in the fields of handicrafts, construction materials and light manufacturing. The tourist industry has grown, with the number of visitors staying in hotels increasing from about 4,000 in 1969, 83,000 in 1975 and 178,000 in 1976. A commercial bank document (Barclays) estimated the 1977 number at 230,000. The general shortage of skilled manpower is one of the major constraints to development and is aggravated by the continuous migration of male workers for employment in South Africa.

Migrant Population and the Economy: Approximately 175,000, i.e., 60 percent of the male labor force and 25,000 women are employed as migrant workers in South Africa, according to 1976 figures. They work mainly in mining and agricultural sectors. Again, relying on 1976 AID and IBRD figures, this contrasted with only 16,000 Basotho men working in the country's modern sector. Between 1970 and 1976 the number of men employed by Republic of South Africa increased by 40,000 while wage employment in Lesotho increased by 2,000. In 1974 net earnings of

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1/ Tayes, Leslie M. Inegration of Women in Development in Zambia, Botswana and Lesotho: AID's Efforts.
November, 1978 p.57

the migrant population came to US $75 million or almost the level of the country's own GDP at that time. It has been estimated that approximately 80 percent of the natural increase in the national labor force will seek employment in South Africa due to the higher wages. Disadvantages are many because of this heavy dependence on income from the migrant labor force. If the decline in the recruitment of Basotho continues, greater numbers of rural families will be forced to rely on the productivity of their farms for subsistence. The absence of much of their skilled and semi-skilled manpower makes it difficult to implement long-term national development programs. This is expecially serious in light of the fact that a sharp slackening is foreseen in the demand for migrant labor in the next few years. 2/ A Government of Lesotho plan, which as yet has not been implemented to any great extent, is to utilize labor-intensive techniques in the execution of public works to cope with future employment situations.

Socio-Cultural and Political Environment: Lesotho is a constitutional monarchy. The traditional social and political structure rests with King Moshoeshoe II. Under him are the Chiefs who, as administrative functionaries, distribute land to the people and preserve law and order in their districts. Plots of land were, and still are to a great extent, traditionally distributed by Chiefs to married men for the subsistence needs of their wives and children. This has been one reason why Basotho society has placed a high value on marriage and children.

Land traditionally was not allocated to bachelors. In the traditional allocation system a man could be granted up to two extra fields for each additional wife. A widower or deserted husband was encouraged to remarry since he would otherwise forfeit most of his rights to land, retaining "only a residence and, at the most, one field" according to one study on land tenure in Lesotho. 3/ If land was not used or lay fallow for three years, it would also revert back to the King for redistribution. Over

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2/ Because of labor force dynamics in South Africa, international reactions to apartheid from the West and other African nations, as well as a serious projected shortage of white, "coloured" and Asian skilled labor, South African trade unions have been pressing their government to ease restrictions on black trade unions. In April 1979, "Coloured" and Asian trade unions were again permitted to mix with white trade unionist (such contract was suspended in 1958).

3/ Sheddick, V. Land Tenure in Basutoland. London, H.M.S.O., 1954, p.164.

the past 20 years there has been a decrease in the amount of fertile land per household to about 2.9 hectares due to population growth. Thaba Bosiu constultants have noted that 5.4 acres per household would be adequate to meet each household's needs. Severe land erosion, inadequate farming practices and overgrazing have helped to diminish the small proportion of arable land.

There is a certain amount of tension within the society partly because of shifts from subsistence economic and political structures to one based on cash and an increasingly urban orientation. For example, while land theoretically is never bought or sold, it would appear that substantial areas of land are regularly bought and sold in Maseru, Roma, and other urban or larger semi-rural locations. Although receipts are not issued, buyers receive "Form C" which must be approved by the chief and which officially entitles them to use the land. 4/

Children are responsible for a number of household tasks. Girls begin farming activities around the age of six when they weed the communal vegetable plot. Communal gardens account for 23.2 percent of the agricultural land according to 1960 census figures. They also assist their mothers in collecting water, washing, preparing meals, and other housekeeping tasks. Care and supervision of younger siblings is also a major responsibility. An older relative, usually a female, will assist in child care. Boys act as herders from the age of six, supervising livestock grazing, thereby releasing many older males for employment in South Africa (approximately 60-70 percent of the male population).

Basotho traditional law views women as perpetual minors in the sense that they are under the protection of male relatives, and when married, under the protection of their husbands. In theory, under traditional law women cannot be allocated fields unless as widows they continue to farm the lands allocated to the husband(s). By law under the constitutional monarchy women cannot enter into contracts without a husband's consent, but a husband is under no such obligation. Ramifications of the male out-migration are that:

4/ Background paper on Thaba Bosiu Project, "The Basotho Social Environment".

(1) family life is severely disrupted;

(2) girls acquire a higher level of education that boys, resulting in difficulties in finding similarly educated marriage partners (see Table 9);

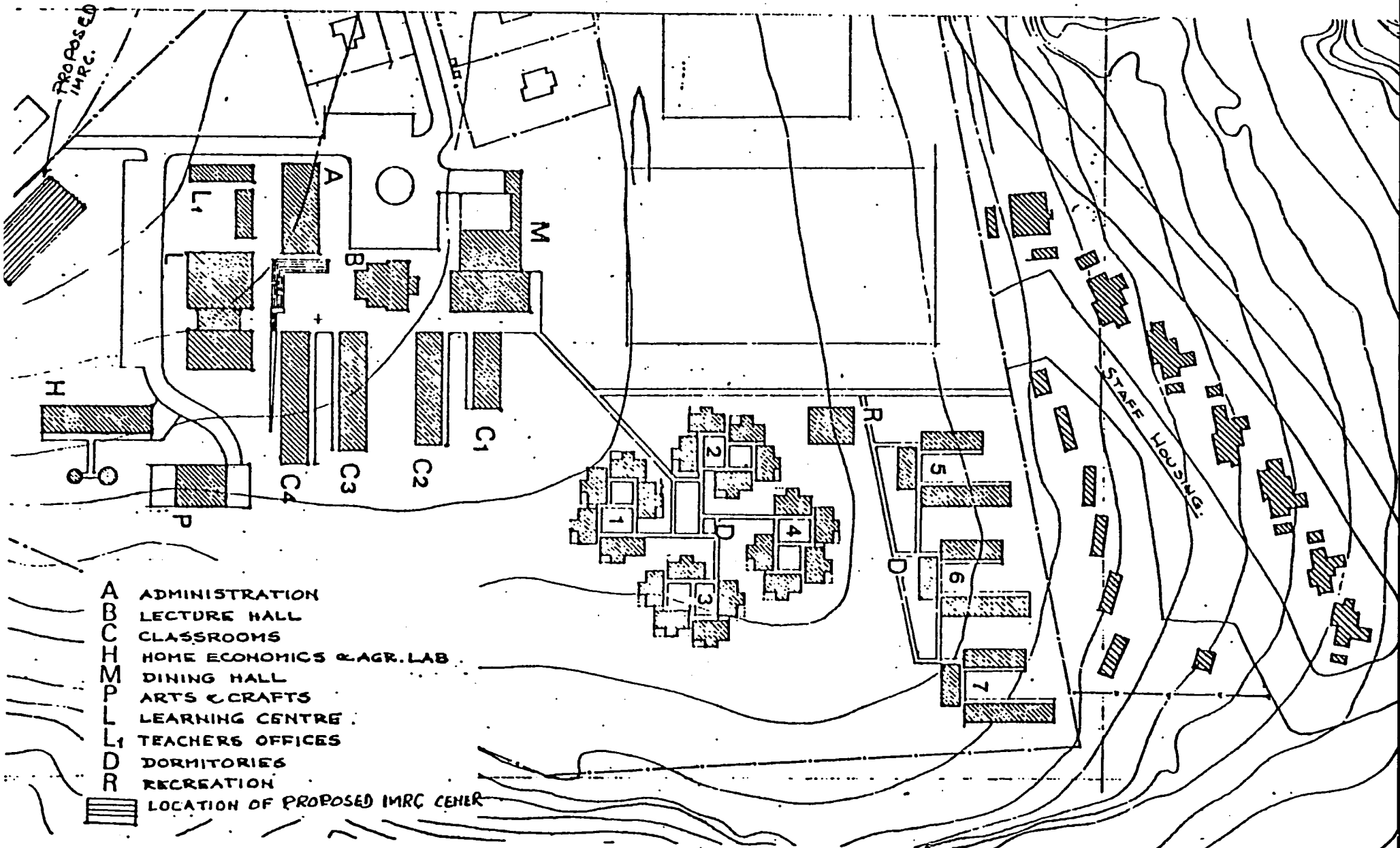
(3) more females earn their livelihoods from agriculture - Basotho males earn their livelihoods from foreign industries. Hence, the females require more up-to-date and varied (i.e., mechanical, agriculturally-oriented training);

(4) women have been assuming men's roles and powers both in the home and in the fields as de facto heads of households without de jure rights. A legal change of some kind might become necessary if the bulk of men were to return permanently; and

(5) women outnumber men as voters since men are out numbered in the general population (see Tables 10-12).

ANNEX E - 1

SITE PLAN SHOWING LOCATION OF PROPOSED IMRC



DESCRIPTION

(1) Printing and Binding: This area will house all printing and binding equipment and will require soundproofing due to the noise level generated by printing machinery.

(2) Control Booth/Studio: This room will contain audio recording and sound duplicating equipment as well as television recording equipment. The room will be multi-purpose for audio and TV recording, photography, as well as a model classroom where demonstration of exemplary teaching would be video-taped. The room requires sound-proofing.

(3) Office Area: This section will contain space for 13 offices which will include eight offices for junior staff, four offices for senior staff, and one office for a secretary.

(4) Conference Room: This room should be large enough to accommodate about 25 persons. It will be used for general meeting purposes and to preview visual materials.

(5) Composing Room: A separate room for two composing machines will be provided and it shall be placed so as to minimize other disturbances to allow concentration for composing work.

(6) Dark Room: Both black and white and color photo processing will be carried out in this room.

(7) Graphic Art: This room will have space for two artists including their drawing boards, a large cutting table and storage space for graphic supplies. This room will be designed and situated so that it will have adequate natural lighting.

(8) Process Camera Room: This room will adjoin the dark room and will be used for all process photographic work.

(9) Wood and Metal Shop: This room will be used to fabricate three dimensional teaching models. Necessary power tools will be housed here with an adequate work area.

(10) Silk Screen Room: This room will adjoin the graphic art room and will be used to prepare visual aids with the silk screen process.

(11) Micro-Teaching Labs: Four rooms for video-taping and critiquing student demonstration lessons.

(12) Storage: It is proposed to have two storage areas in this building, with shelves on the wall and shelving in between. Part of the area in one of the storage rooms will also be utilized for maintenance/repair of IMRC equipment. Supplies and equipment which are not in use fulltime will be stored in this area.

(13) Faculty/Student Work Area: This room will adjoin the shop and be used by faculty and students to prepare their own materials for teaching and learning purposes.

(14) Reference Library: It is proposed to have a small reference library for instructional books/periodicals to be used for faculty and student reference.

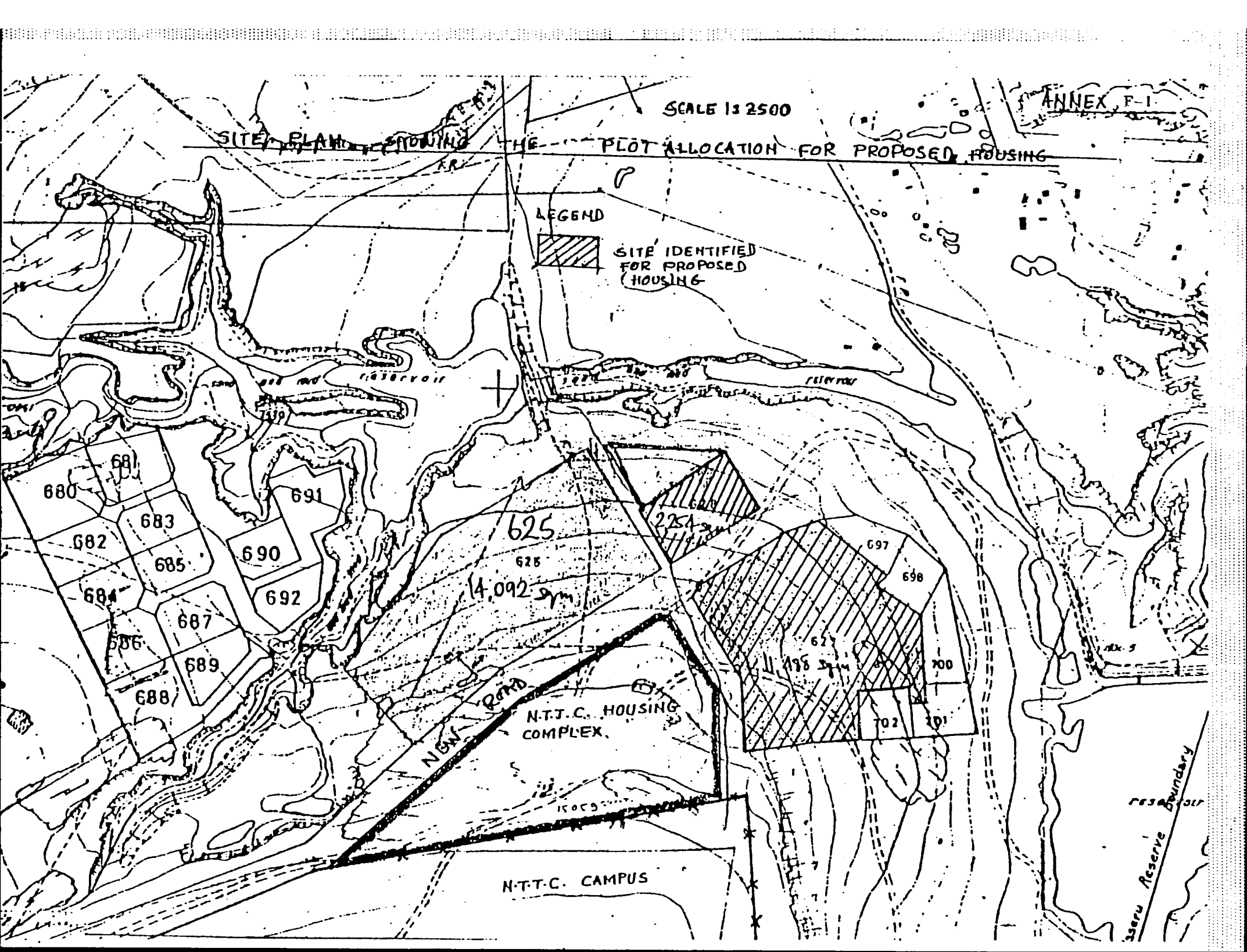
(15) Reception/Entrance: A small area for a receptionist/secretary as well as a display area for new instructional materials will be allotted.

(16) Appropriate space for janitorial closets and tea rooms will also be provided.

The approximate requirement of area for each of the above sections is appended below:

Section	Approx. Sq. Ft. Area[1/]
IMRC	
(1) Printing and Binding	1,250
(2) Control Booth/Studio	1,300
(3) Office Space:	
i) 8 junior staff @ 135 sq.ft. each	1,080
ii) 4 senior staff @ 175 sq.ft. each	700
iii) Secretary	135
(4) Conference Room	300
(5) Composing Room	175
(6) Dark Room	200
(7) Graphic Art	400
(8) Process Camera Room	150
(9) Wood/Metal Shop	500
(10) Silk Screen Room	270
(11) Micro-teaching labs (4)	720
(12) Storage	1,000
(13) Faculty/Student Work Area	300
(14) Reference Library	225
(15) Dry Photo Laboratory	200
(16) Reception/Passages	900
(17) Toilet Area	200
(18) Janitorial Closets and Tea Rooms	140
TOTAL	10,145 sq. ft.

1/ See Annex K for costs.


ANNEX F-1
SCALE 1:2500
SITE PLAN SHOWING PLOT ALLOCATION FOR PROPOSED HOUSING
LEGEND
SITE IDENTIFIED FOR PROPOSED HOUSING
680
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690
691
692
625
625
14,092 Sq.m
2254 Sq.m
697
698
699
700
701
702
N.T.T.C. HOUSING COMPLEX.
NEW ROAD
N.T.T.C. CAMPUS
reservoir
Iseru Reserve Boundary

Description

Based on the assumption that the four IMRC project houses will be proposed by the Government's Cabinet Housing Advisor to be co-located with housing financed by another donor, site development including utilities, construction, and supervision and inspection of work are budgeted as follows:

1. Design of houses: The Republic of Ireland has proposed financing of ten housing units in the same general area as the four IMRC houses. Additionally, the Government of Lesotho has reserved six housing sites in the same area for the proposed future AID financed Produce Marketing Corporation project. The total number of housing units proposed for development, therefore, is 20 units. Common utilities, storm drainage, access roads, parking, security fencing and possible design work for these 20 units are estimated to cost in the vicinity of $48,000. The prorated share to the IMRC project is about $9,600.

2. Construction of houses: For the past two years, AID has financed construction of project houses in Lesotho on a FAR basis at $35,000 per house, not including costs for servicing sites with public utilities or provision of access roads. Over the past several years, inflation at approximately 1.5% per month in Lesotho should now justify the cost of a senior project house at the price of up to $47,500. Efficiencies gained in the local construction industry over the past several years have tended to offset the inflation factor to some extent and the increasing number of local construction firms have additionally created a general environment of intense competition for the smaller work offered by the Government such as project houses. However, recent price increases in the Republic of South Africa for construction materials and the quantum price leap in POL prices over the past year is impacting considerably on Lesotho's construction industry with the result that higher bids may result for project houses. Steel prices alone, for example, are expected to rise in South Africa by about 30% in July or August, 1979, per advice from a U.K. consulting engineering firm doing work in Lesotho. The cost for a new 3-BR senior project house with fencing, drainage, walks, and driveway is therefore estimated to be about $43,000. This still results in a unit cost of $29 per square foot at this time, low by U.S. standards for a relatively good dwelling unit.

3. Utilities and Exterior Work: Because of a completed development of other residences in the NTTC general area financed by the U.K., utilities are available nearby the proposed site. The new housing area is adjacent to the U.S.'s developed site; therefore, a common paved access road is already existing to the general area. Some further access and parking will be required, however, at an estimated cost of R25,000. A sewage sub-main to connect to the main existing sewage line is required at about R12,000. An electrical substation with transformer to serve the new housing area is expected at about R30,000. A water main extension is required at R15,000 to serve the 20 units. Site grading for the entire new housing area is required

at about R20,000. Landscaping including walkways is estimated at R12,000. Total for utilities and exterior work is accordingly estimated to be R114,000. The GOL previously met site and servicing costs, but budget restrictions, ever increasing construction activity, and the extra work required for this site call for a supplemental AID contribution in this instance.

4. Supervision and Inspection of Construction: Supervision and inspection of construction is proposed for award to a local firm. The construction period including provision of all utilities services should be six months. Supervision and inspections services by contract should be about R12,000. Because of good knowledge of local construction practices and procedures by A-E firms based in Lesotho, and because of the relatively low amount proposed for this S&I contract, it is proposed that the Government award the contract to a local firm.

CPO/4/06/1 - 474
ML/QM/MT

In reply please quote:

Your Reference:

ANNEX G

Cable address: PLANNOFF

Telephone: 3811 Maseru

THE CENTRAL PLANNING OFFICE
P.O. BOX 630
MASERU
LESOTHO

21st May, 1979.

Frank J. Campbell Esq.,
USAID Representative,
P.O. Box 333,
MASERU - 100.

Dear Mr. Campbell,

USAID FINANCED INSTRUCTIONAL MATERIALS RESOURCES CENTRE - NTTC

The Instructional Materials Resources Centre (IMRC) which is financially assisted by USAID started operations in April, 1978.

The Government of Lesotho attaches great importance to IMRC as an approporiate body for preparing and producing instructional materials for usage in all schools in the Country. Since April, 1978, a fair amount of progress has been attained in the production of instructional materials but much remains to be done for IMRC to operate as an effective and efficient body. A detailed project document outlining the volume and nature of assistance requested from USAID will be submitted as soon as possible.

The Government would be grateful if USAID could favourably consider further assistance to IMRC of the NTTC.

Yours sincerely,

Q. M. MOJI (MRS)
Deputy Director, Planning.

STATUTORY CHECKLIST

6C(2) - Project Checklist[1/]

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance.

A. General Criteria for Project

1. App. Unnumbered; FAA Sec. 653(c) (a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;	(a) This project was included in the FY 1979 Congressional Presentation on page 193.
(b) Is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than $1 million over that figure plus 10%)?	(b) Yes.
2. FAA Sec. 611(a)(1). Prior to obligation in excess of $100,000, will there be (a) engineering, financial and other plans necessary to carry out the assistance and	(a) Yes. This criterion has been met.
(b) a reasonably firm estimate of the cost to the U.S.?	(b) Yes.
3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?	The GOL Executive Branch will have to establish technical positions for the Instructional Materials Resource Center and include project funding in the GOL budget. These are administrative actions which require no specific legislative actions.
4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per Memorandum of the President dated Sept. 5, 1973 (replaces Memorandum of May 15, 1962; see Fed. Register, Vol. 38, No. 174, Part III, Sept. 10, 1973)?	This is not a water or water-related land resource construction project.

1/ FY 1979 country checklist submitted with the Rural Water and Sanitation Project 632-0088.

5. FAA Sec. 611 (e). If project is capital assistance (e.g. construction), and all U.S. assistance for it will exceed $1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?	Yes.
6. FAA Sec. 209, 619. Is project susceptible of execution as part of a regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multilateral organizations or plans to the maximum extent appropriate?	No.
7. FAA Sec. 601(a); (and Sec. 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices.	The project is designed to improve the productivity of all Basotho primary and secondary students, including the rural poor.
8. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.	GOL will contribute approximately 11 % of the project costs. This is considered reasonable and generous in view of Lesotho's international political climate, its status on the UN's list of "least developed countries," and its limited financial resource.
9. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?	Not an excess foreign currency country.

B. Funding Criteria for Project

1. Development Assistance Project Criteria

a. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: (include only applicable paragraph -- e.g., a, b, etc. which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.)

(1) (105) for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural, families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development.

The project supports Lesotho's efforts to switch from a welter of privately supported, classically oriented curricula to a nationally standard, development oriented curriculum. A special feature of the project is its contribution to development of Lesotho's capacity to distribute learning materials to the rural poor.

b. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

Lesotho agrees to contribute 11 % of project costs which is considered generous in view of its position as a relatively least developed country and limited financial resources and which will enable it to continue the activities launched by this pro project.

c. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed?"

No.

d. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining

The project is oriented toward making education more development related and toward extending materials to a greater proportion of the students.

economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities, and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

e. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance of payments position.

The technicians will be recruited from a U.S. company. Some commodities will be purchased from the U.S.

SECTION 611(e) CERTIFICATION

IMRC PROJECT - LESOTHO

I, Byron Bahl, the principal acting officer of the Agency for International Development in Lesotho, having taken into account, among other things, the maintenance and utilization of projects in Lesotho previously financed or assisted by the United States, commitments by the Government of Lesotho to provide by the end of the project resources to maintain the IMRC facilities including housing, the likelihood of AID's and/or other donor support for projects to improve Lesotho's maintenance capabilities, and the Government of Lesotho's present commitment of resources to maintenance activities, do hereby certify that in my judgment, the Government of Lesotho has both the financial capability, organization, and human resources to effectively maintain and utilize the capital assistance to be implemented under this project.

Byron Bahl

Byron Bahl
Acting Director
USAID/Lesotho

26 June 1979

(Date)

ANNEX J - WAIVERS AND APPROVALS

I. Waivers and Approvals Required.

1. Waiver of the 25 percent cost sharing requirement contained in Section 110(a) of the Foreign Assistance Act of 1961 as amended.

2. Waiver of source and origin requirements under AID Handbook 1, Supplement B, from AID Geographic Code 941 (Selected Free World) to permit procurement of construction materials (approximately $500,000) from Code 935 (Special Free World) countries.

3. Approval for proprietary procurement of 1 project vehicle from International Harvester at an approximate cost of $12,000.

II. Waiver of the 25 Percent Cost Sharing Requirement Contained in Section 110(a) of the Foreign Assistance Act.

Lesotho is on the United Nations Conference on Trade and Development list of relatively least developed countries. Lesotho will be contributing $346,000 or over 10 percent of the project total. Much of this contribution will be incremental budget expenditures rather than contributions in kind. The waiver is thus requested in view of Lesotho's position as an RLDC and its sizable contribution toward project costs.

III. Justification for Source Waiver for Construction Materials.

Construction materials will be used in building a materials production center and four staff houses.

Materials such as cement, steel sheets, roofing, window frames, plumbing fixtures, etc., are normally imported from South Africa or the United Kingdom. For the most part, these are manufactured to standards (size, threads, units of measures, etc.) different from and incompatible with U.S. specifications. Similarly, electrical materials and supplies are 220 volt, 50 cycle, contrary to standard U.S. specifications. It is essential that facilities be constructed using fixtures and materials for which replacement parts and service facilities are readily available in Lesotho.

It would not be practical to purchase U.S. items in the small quantities needed when private dealers in Lesotho are equipped only to service and repair equipment made in South Africa and the U.K. Moreover, considering shipping costs and small quantities involved, U.S. delivered prices would substantially exceed prices for comparable items procured in South Africa. The long lead time required to procure from the U.S. could also delay project implementation if construction of housing for AID-financed technicians was delayed. The severe shortage of housing in Lesotho makes it imperative that construction begin at the earliest possible date.

IV. Justification for Proprietary Procurement of 1 International Harvester Company (IHC) Vehicle

The need for proprietary procurement of International Harvester (IHC) vehicles for this project is based upon the following:

A. IHC is the only U.S. vehicle manufacturer with a distributorship located in Maseru, Lesotho.

B. IHC has indicated that its Lesotho distributor is willing and capable of servicing their complete line of right-hand drive trucks, and will maintain an inventory of fast moving spare parts. If for some reason, a part is not readily available at this location, IHC has indicated that parts can be obtained from a branch office in Bloemfontein, S.A.

C. IHC has indicated its willingness to conduct a maintenance training program in Lesotho for Basotho mechanics.

D. IHC is willing to post a performance bond to insure that its Lesotho distributor will offer adequate service and parts support for project vehicles. The performance bond would remain in effect for a period of one year after delivery of the vehicles.

These vehicles will be manufactured, according to desired specification, in the U.S. and shipped to Lesotho. IHC indicates they will be able to manufacture and ship these project vehicles in a timely manner.

For the above reasons, we believe it would be most appropriate to procure the necessary vehicles for this project from IHC.

COST ESTIMATES
INSTRUCTIONAL MATERIALS RESOURCE CENTER

FY 79 - 84
(000 US$)

		Foreign Exchange	Local Currency	Total
I.	GRAND TOTAL	1,858	1,397	3,255
	A. USAID	1,858	1,051	2,909
	B. GOL	-	346	346
II.	USAID	1,857.7	1,051.3	2,909.0
	A. Technical Assistance	1,500.0	-	1,500.0
	1. Senior Project Adviser (4 PY's @ 80.0)	320.0	-	320.0
	2. Production and Graphic Art Adviser (4 PY's @ 80.0)	320.0	-	320.0
	3. Instructional Designer/ Adviser (4 PY's @80.0)	320.0	-	320.0
	4. Research Adviser (4 PY's @ 80.0)	320.0	-	320.0
	5. Consultants (18 PM's @ 10.0)	180.0	-	180.0
	6. Evaluation (4 PM's @ 10.0)	40.0	-	40.0

I/ Contingency and inflation included in the person year cost. Using the OPEX mechanism (but fully funded by AID) with two candidates already identified should minimize person year cost.

	B. Training	238.0		
	1. Participant Training - long term (5 for 2 years U.S.)	178.0	-	178.0
	2. Participant Training - short term (30 PM's U.S.)	60.0	-	60.0
	C. *Commodities	119.7	150.3	270.0
	1. Production Equipment	119.7	138.3	258.0
	2. Vehicle	-	12.0	12.0
	D. Construction		862.0	862.0
	1. Production Center		650.0	650.0
	2. Senior Staff Housing		212.0	212.0
	E. Local Staff		39.0	39.0

* See detailed commodity list in Annex K-

GOL Contribution

	Foreign Exchange	Local Currency	TOTAL
1. Professional Staff a. IMRC Coordinator b. Deputy Coordinator/Instructional Designer c. Research Specialist d. Production Supervisor	-	119.0	119.0
2. Support Staff a. Printing Manager b. Four Artists c. Three Printers d. Two Computer Operators e. Audio Visual Assistant f. Collator/Binder g. Shop Technician h. Secretary i. Binder	-	91.0	91.0
j. Travel and per diem	-	8.0	8.0
3. In-Service Training	-	5.0	5.0
4. Paper, Supplies	-	60.0	60.0
5. Maintenance, Utilities	-	20.0	20.0
6. Land	-	15.0	15.0
7. Temporary Office Space	-	28.0	28.0
		346.0	346.0

See Tables 3, 4, and 5 - pages 30-32 - for projections of annual expenditures and obligations.

ESTIMATE OF BUILDING COSTS

A.	Production Center Room or Work Area Function	m^2 (gross)	Estimated Cost (Rand)
1.	Printing & Binding	124	
	Extra for Soundproofing		R 2,480
	Extra for Temp. Control		4,000
2.	Control Booth/Studio	129	
	Extra for Soundproofing		2,580
3.	Offices	177	
4.	Conference Room	30	
5.	Composing Room	17	
6.	Dark Room	20	
	Extra for Light Control		600
7.	Graphic Art	40	
8.	Process Camera Room	15	
	Extra for Light Control		450
9.	Wood/Metal Shop	50	
10.	Silk Screen Room	27	
	Extra for Temp. Control		2,000
11.	Micro-Teaching Labs	72	
12.	Storage	100	
	Extra for Shelving		2,000
13.	Faculty/Student Work Area	36	
14.	Reference Library	22	
	Extra for Shelving		660
15.	Dry Photo Laboratory	20	
16.	Reception/Passages	90	
17.	Toilet Areas	20	
18.	Janitorial & Tea Rooms	13	
Sub-Total		1,002 m^2 @ R310/m^2 = R310,620	
		Plus Extras R 14,770	R325,390

19.	External Works:		
	a. Landscaping & Grassing	R 1,500	
	b. Water Retriculation	2,000	
	c. Sewer	5,000	
	d. Electrical (& Relocation)	24,000	
	e. Stormwater Drain Facilities	1,000	
	f. Security Fencing	3,000	
	g. Parking/Access Road	6,000	
		R42,500	42,500
		Total ...	R367,890
			($437,789)
20.	Total		R367,890
	Contingency at 10%		36,789
			R404,679
	Inflation (approx) from July thru March 1980 at 1.5% per/mo. (13.5%)		54,632
			R459,311
	Inflation (approx) for 1st four months of construction stage (reflected in contractors' bid prices) at 2% per mo. (8%)		36,745
21.	Total Estimated Construction Cost		R496,056
			($590,306)
	Architect-Engineer & Supervision/Inspection Fees:		
22.	Architect-Engineer Design Fee (U.S. Based)		$ 50,000
	Supervision/Inspection		10,000
	Total Professional Services		$ 60,000
23.	Grand Total: Construction		$590,306
	A-E		60,000
			$650,306
		(rounded to)	$650,000

B. Houses

Total Housing Costs: (prorated at 1/5 of total costs)

a.	Design - $48,000 x 1/5	$ 9,600
b.	Construction - $43,000 per house x 4 houses	172,000
c.	Site Preparation and Utilities	
	R114,000 x 1/5 = R22,800 = $27,360	27,360
d.	Supervision & Inspection	
	R12,000 x 1/5 = R2,400 = $2,880	2,880
	TOTAL	$211,840
	($52,960 per house)	

COMMODITIES LIST

ITEM	US Purchase	Foreign Purchase	Amount
Drafting equipment	X		$ 5,000
Photocopier/plate-maker	X		5,000
Photo paper dryer	X		1,000
Photo film dryer	X		700
Photo paper washer	X		500
Printing press	X		30,000
Typewriter-manual (10)	X		4,000
Typewriter-electric (2)		X	2,000
Folder/perforator		X	4,000
Racks and shelves		X	4,000
Headliner	X		2,000
Paste-up waxer	X		1,000
Hand tools		X	2,000
Power tools		X	6,000
Silk screen equipment	X		1,000
Slide/filmstrip copier	X		1,000
Work bench (3)		X	1,000
Photo (misc)		X	1,000
Paper storage drawers	X		2,000
PMT processor		X	700
Dry mount Press	X		700
TV equipment	X		40,000
Audio equipment	X		10,000
Office furniture		X	12,000
Cassette tape recorders(35)		X	4,000
Vehicle and spares		X	12,000
Super-8 movie equipment		X	5,000
Copy stand (large)	X		4,000
Flood and spot lights		X	4,000
Consumable supplies		X	50,000
Reference materials and periodicals	X	X	15,000
Sub-total	$108,900	$136,700	245,600
10 percent Contingency	10,800	13,600	24,400
Total	$119,700	$150,300	$270,000

In Phase I of the project, approximately $75,000 will have been spent for production and utilization equipment. All of this will have utility in Phase II.

TABLE 1

NUMBER OF PRIMARY SCHOOLS, CLASSROOMS, CLASSES, PUPILS, TEACHERS AND PUPIL:TEACHER RATIOS BY GOVERNING BODY - MARCH 1976

Governing Body	No. of Schools	% of Schools	No. of Classrooms	NO. OF PUPILS				NO. OF TEACHERS				% of Unqual. Teacs.	Pupils per Qualified Teacher	Pupil: Total Teacher Ratio	No. of Schools Offering Full Cour	% of Total No of Schools
				No. of Classes	Boys	Girls	% of Total	Total Qualifi.		Unqual.	Total					
L.E.C.	431	40	942	1648	38184	52965	41	91149	1041	468	1509	31	1:88	1:60	168	39
R.C.M.	440	41	1489	1949	38084	58528	44	96612	1442	551	1993	28	1:67	1:48	172	39
A.C.L.	151	14	387	591	11638	15622	12	27260	364	204	568	36	1:75	1:48	58	38
A.M.E.	10	1	23	43	774	1057	1	1831	33	8	41	20	1:56	1:45	6	60
Govt.& C'ttee	16	2	63	69	1299	1294	1	2593	57	16	73	22	1:45	1:36	7	44
Other	15	2	44	52	1189	1383	1	2572	38	13	51	25	1:68	1:50	5	33
TOTAL	1063	100	2948	4352	91168	130849	100	222017	2975	1260	4235	30	1:75	1:52	416	39
TOTAL 1975	1065	-	2875	4733	90915	131017	-	22-932	2948	1280	4228	30	-	1:52	378	35

Note: L.E.C. - Lesotho Evangelical Church
R.C.M. - Roman Catholic Mission
A.C.L. - Anglican Church of Lesotho
A.M.E. - African Methodist Episcopal Church

Source: Education Statistics 1976 - Bureau of Statistics, Maseru.

Source: John Abbott Growth and Resource Allocation in Lesotho's Primary School System. Institute of Development Mgmt. Resource Paper No. 2, August 1978.

TABLE 2

The following Table shows the distribution of funds between the missions compared to the percentage of classrooms owned by respective denominations.

A COMPARISON BY DENOMINATION OF ALLOCATED FUNDS FOR CLASSROOM BUILDING AND IMPROVEMENT -

	RCM	LEC	ACL	AME	Community	Total Amounts Allocated
	R	R	R	R	R	R
Funds Allocated Rand	1,404,393	448,874	397,512	201,902	9,354	2,462,035
Funds allocated as % of Total	57%	18%	16%	8%	1%	
Number of Classrooms owned by Missions as percentage of total	51%	32%	13%	1%	1%	

Source Ministry of Education: Memo to Education Secretories 13 September, 1977.

The table shows that the allocation of funds to Missions is not proportional to the number of classrooms owned by respective Missions. The Roman Catholic Mission is allocated 57 percent of funds while owning 51 percent of classrooms, but the Lesotho Evangelical Church has been allocated 18 percent of total building funds but its ownership of classrooms is 32 percent.

Pupil to teacher ratios for Districts are close to the average for the country. Only inter-denominational comparisons of P:T ratios by Mission (Table 1) show significant variation; Government and Committee schools having substantially fewer pupils per teacher. Only LEC schools have P:T ratios higher (60:1) than the national average (52:1).

TABLE 3

Class Accommodation in Primary Schools in Lesotho, March 1975

No. of Classes by Type of Building									
School Building		Church Building		Other Building		Open Air		Total	
No.	%	No.	%	No.	%	No.	%	No.	%
2274	54	1571	33	257	5	328	7	4773	100

Source: Ministry of Education, Annual Report 1974-1975.

Table 3 illustrates that in 1975 7 percent of Primary Schools Classes were held in the open air. Only 54 percent of Classes were housed in a specifically built classroom.

TABLE 4

Seating Provision in Primary Schools - 1975

Pupils Seated									
at desks		on chairs		on benches		on the floor		total	
No.	%	No.	%	No.	%	No.	%	No.	%
72343	32	1604	1	57209	26	90776	41	221932	100

Table 4 shows that 41 percent of pupils in 1975 had no form of seating whatsoever.

The pattern of infrastructure development, population growth points and migration all have an important bearing on school planning, that is, school building and improvement and school consolidation.

TABLE 5

PUPILS PER TEACHER, PUPILS PER TRAINED TEACHER PUPILS PER CLASSROOM BY DENOMINATION AND LOCATION -

Pupils per Teacher

	District Headquarters	Location 4-6000 ft.	Location 6-8000 ft.
RCM	47	44	44
ACL	58	53	54
LEC	64	53	58

Pupil per Trained Teacher

	District Headquarters	Location 4-6000 ft.	Location 6-8000 ft.
RCM	55	83	72
ACL	64	78	89
LEC	73	84	97

Pupils per Classroom or Church Hall

	District Headquarters	Location 4-6000 ft.	Location 6-8000 ft.
RCM	59	83	102
ACL	77	86	115
LEC	96	106	116

TABLE 5(a)

NUMBER OF PRIMARY SCHOOLS, CLASSROOMS, CLASSES, PUPILS, TEACHERS AND PUPIL: TEACHER RATIOS BY DISTRICT -

DISTRICT	No. of Schools	No.of Class-rooms	No. of Classes	Number of Pupils			Number of Teachers			% of Unqualified	Pupil: Teacher Ratios	No.Schools offering full course	% of Total No. of Schools
				Boys	Girls	Total	Qualified	Unqualified	Total				
BEREA	94	388	562	13,204	16,790	29,994	379	165	554	30.3	55.1:1	50	53
BUTHA BUTHE	63	210	301	6,692	8,669	15,361	156	144	300	48.0	51.2:1	30	48
LERIBE	140	458	810	18,218	22,919	41,137	488	321	809	39.7	50.8:1	77	55
MAFETENG	115	325	568	10,836	17,509	28,345	379	175	554	31.6	51.2:1	63	50
MASERU	204	675	976	21,217	30,175	51,392	748	234	982	23.8	52.3:1	86	42
MOHALE'SHOEK	129	254	437	8,076	14,269	22,345	262	164	426	38.5	52.5:1	38	29
MOKHOTLONG	103	155	263	3,939	7,969	11,908	142	106	248	42.7	48.0:1	25	24
QACHA'SNEK	114	198	308	5,310	8,291	13,607	202	73	275	26.5	49.5:1	20	18
QUTHING	108	180	302	5,300	9,140	14,440	165	118	283	41.7	51.0:1	21	19
TOTAL	1,080	2,843	4,529	92,792	135,731	228,523	2,921	1,500	4.421	33.9	51.7.1	410	38

NOTE: Excludes 18 Schools which did not submit returns; some may have ceased operations.

Source: MINEDUC, Statistics Dept.

Pupils per qualified teacher in the three largest missions, which together operate 95 percent of the schools in 1976 were RCM 67:1, ACL 75:1, LEC 88:1. Finally, another meaningful indicator of the primary schools system is the number of classes held in the open air and the number of pupils seated on the floor (Table 3).

TABLE 6

UNQUALIFIED TEACHERS (PRIMARY) BY QUALIFICATION, SEX AND DISTRICT March, 1978

DISTRICT	COSC/ GCE/ Matric		Junior Certificate Interns		Grades 6-8		Total Unqualified			ALL TEACHERS
	M.	F	M.	F.	M.	F.	M.	F.	TOTAL	
BEREA	-	7	3	73	10	51	13	131	144	300
BUTHA-BUTHE	-	7	3	73	10	51	13	131	144	300
LERIBE	3	14	5	118	21	160	29	292	321	809
MAFETENG	-	1	10	54	10	100	20	155	175	554
MASERU	4	9	14	73	14	120	32	202	234	982
MOHALE'SHOEK	1	3	12	58	9	81	22	142	164	426
MOKHOTLONG	-	3	10	33	12	48	22	84	106	248
QACHA'SNEK	-	1	8	29	6	29	14	59	73	275
QUTHING	1	2	4	57	5	49	10	108	118	283
TOTAL	11	42	72	579	93	703	176	1324	1500	4421

TABLE 6 (a)

PERCENTAGE OF UNTRAINED TEACHERS AND PRIMARY HIGHER TRAINED TEACHERS BY DENOMINATION AND LOCATION

Percentage of Untrained Teachers

	District Headquarters	Location 4-6000 ft.	Location 6-8000 ft.
RCM	15	28	39
LEC	13	28	41
ACL	8	31	40

Percentage Primary Higher Trained Teachers

	District Headquarters	Location 4-6000 ft.	Location 6-8000 ft.
RCM	27	9	11
LEC	26	10	9
ACL	28	23	20

Percentage of Untrained Teachers with Standard Six, Seven or Eight Qualifications Only

	District Headquarters	Location 4-6000 ft	Location 6-8000 ft.
RCM	11	19	18
LEC	1	5	28
ACL	8	19	27

Source: MINIDUC, Statistics Dept.

The number of desks, benches, tables, chalkboards and toilets/ latrines in each school has already been obtained by the Ministry of Education in a recent questionnaire, so these data were used. Table 7 indicates that a relationship exists between the provision of student seating and both the altitudes at which a given school is situated and the denomination of that school.

TABLE 7

PROVISION OF EQUIPMENT, TEACHING AIDS AND TOILETS: SAMPLE BY SCHOOL LOCATION AND DENOMINATION. 1976

	District Headquarters			Schools 4-6000 ft.			Schools at 6-8000 ft.		
	LEC	RCM	ACL	LEC	RCM	ACL	LEC	RCM	ACL*
Percentage of Pupils without seating	66.0	33.5	34.0	85.7	49.1	45.8	67.6	68.7	-
Percentage of Pupils with desks	10.5	11.7	17.0	6.0	4.4	9.1	14.1	2.8	-
Teachers per Table and Chair	3.3	0.84	1.0	8.0	2.4	1.8	2.0	2.54	-
Chalk-boards per Teacher	0.85	1.82	1.1	0.78	1.15	1.3	1.0	1.42	-
Pupils/ Lavatory	86	104	48	2430	24	15	No. Lav.	No. Lav.	-

Source: Sample data based on Ministry of Education questionnaire.

*Sample of ACL Schools at this altitude too small to be statistically significant.

School Classrooms

The following table from the project memorandum of the proposed EEC/British primary school building and improvement project represents the number of new classrooms and improvements estimated by the Ministry of Education to be required to house the present 222,000 enrolment at a P:T ratio of 40:1. The Government estimates that 1,828 classrooms require repair and 2,602 new classrooms need to be built.

TABLE 8

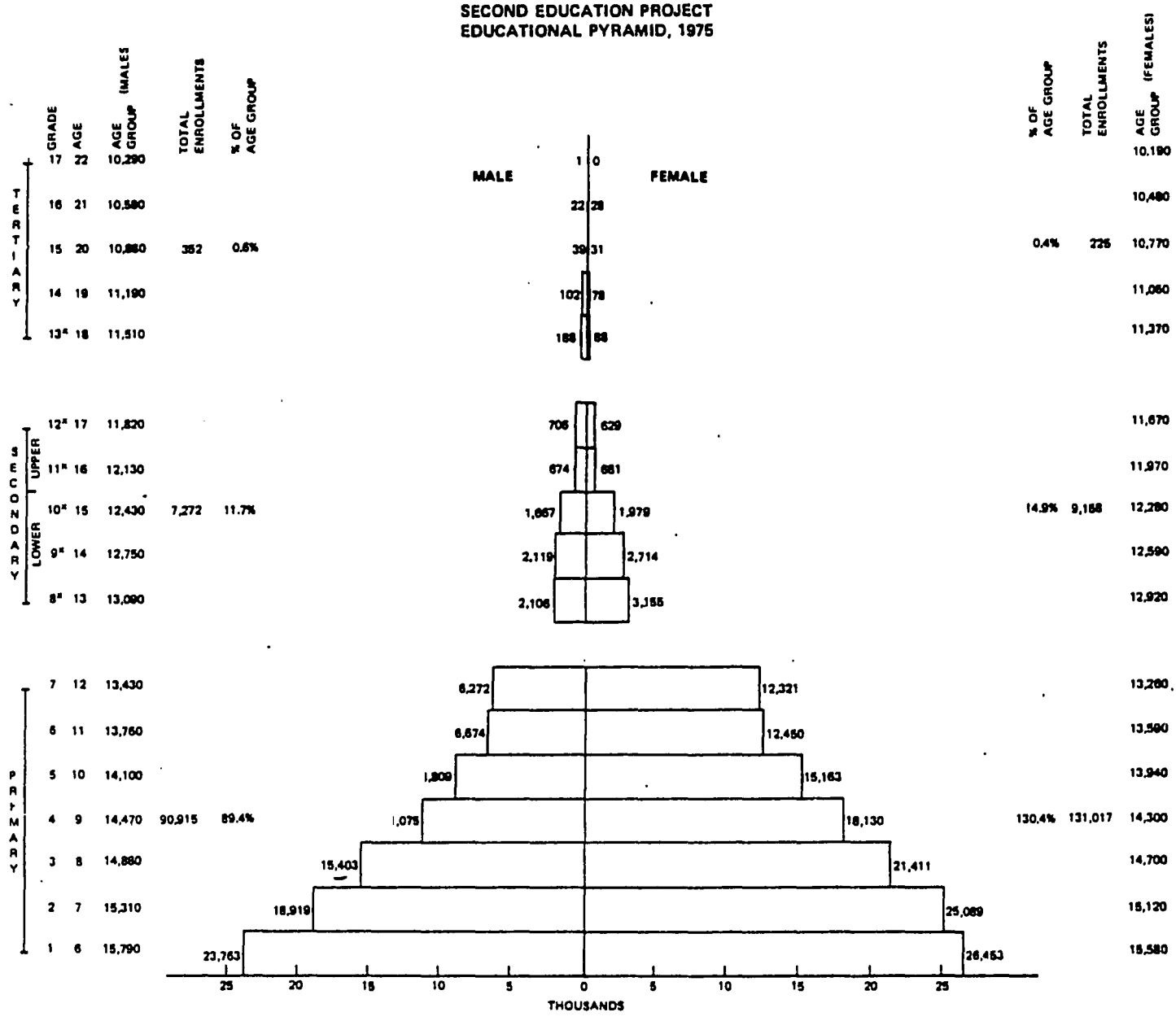
ESTIMATED NEW CLASSROOM AND CLASSROOM IMPROVEMENT REQUIREMENT

Type of Classroom	Present Number	Satisfactory Classrooms	Classrooms needing repairs	New Classrooms needed	Needed R value
a) Standard	2,948	1,120	1,828	1,123	9,791,950
b) Church	1,018	-	-	1,018	4,733,700
c) Other	221	-	-	221	1,027,650
d) Open air	240	-	-	240	1,116,000
Total 40:1 ratio require 5500 classrooms		1,120	1,828	2,602	16,669,300

Source: Ministry of Education: European Economic Commission Education Project Memorandum.

TABLE 9

LESOTHO
SECOND EDUCATION PROJECT
EDUCATIONAL PYRAMID, 1975



Note:* Grades 8 through 13 include enrollments in general—secondary courses, teacher—training courses, and vocational and technical courses.

Source: Annual Statistical Abstract, 1975

TABLE 10

ESTIMATES OF POPULATION AGED 15-64 BY GROUP AND SEX - 1966 to 1980

(Thousands)

		1966	1970	1975	1980
Males	15-24	81.4	99.0	110.6	123.4
	25-64	172.4	197.3	220.1	245.6
Males	15-64	253.8	296.3	330.7	369.0
Females	15-24	89.2	98.0	109.4	122.0
	25-64	187.0	200.8	224.1	250.1
Females	15-64	276.2	298.8	333.5	372.1
Both Sexes	15-64	530.0	595.1	664.2	741.1

Source: Population Census of 1966. Figures for later years from population projections of Bureau of Statistics.

TABLE 11

ESTIMATED RATES OF PARTICIPATION IN EMPLOYMENT BY AGE GROUP AND SEX - 1966 to 1980

(Percentages)

		1966	1970	1975	1980
Male	15-24	65	64	68	70
"	25-64	94	94	94	95
Male	15-64	85	84	85	87
Females	15-24	53	54	57	59
"	25-64	88	88	86	83
Females	15-64	77	77	77	75
Both Sexes	15-64	80	80	81	81

Source: Population Census of 1966. Figures for later years are estimates based on changing trends in over-age enrollment in schools and anticipated changes resulting from the high volume of internal employment creation planned to 1980.

TABLE 12

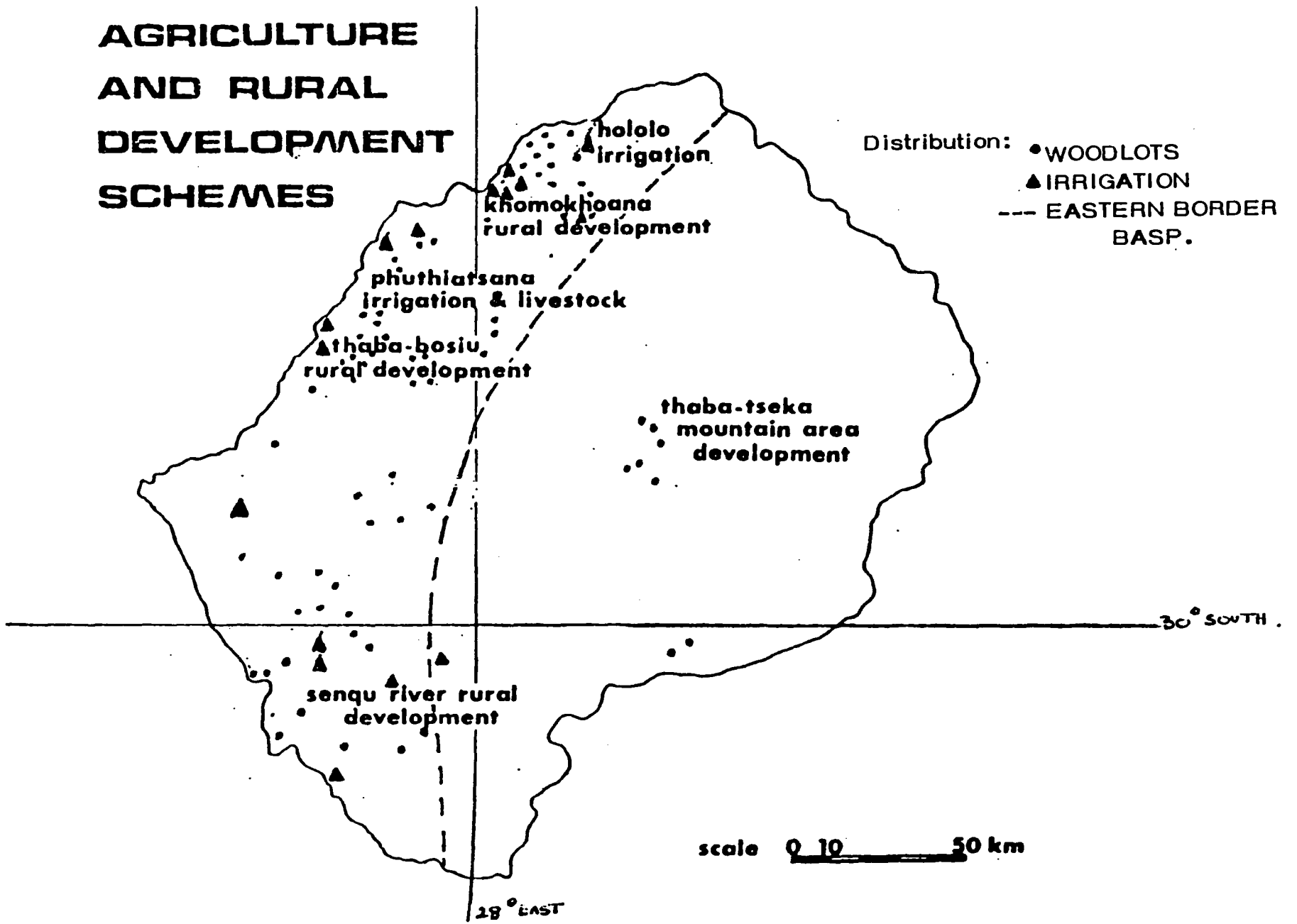
ESTIMATES OF NON-EMPLOYED POPULATION BY AGE GROUP AND SEX IN 1975

(Thousands)

		Total Population	Employed	Non-Employed Absolute	Percent
Males	15-24	110.6	74.8	35.8	32
"	25-64	220.1	207.5	12.6	6
Males	15-64	330.7	282.3	48.4	15
Females	15-24	109.4	62.7	46.7	43
"	25-64	224.1	193.2	30.9	14
Females	15-64	333.5	255.9	77.6	23
Both Sexes	15-64	664.2	538.2	126.0	19

Source: Derived from Tables I and II.

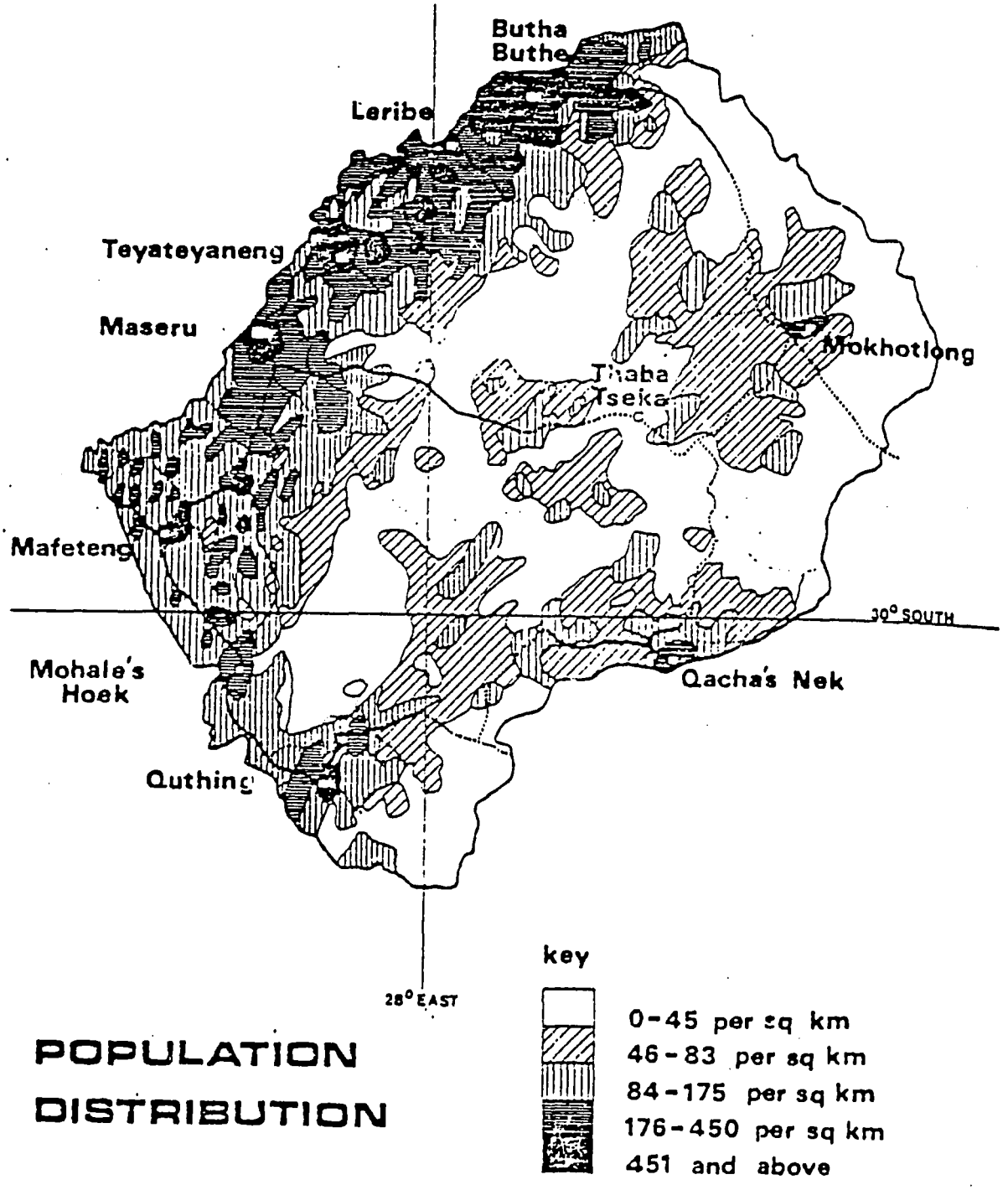
MAP 1


AGRICULTURE AND RURAL DEVELOPMENT SCHEMES
Distribution:
WOODLOTS
IRRIGATION
EASTERN BORDER BASP.
hololo irrigation
khomokhoana rural development
phuthiatsana irrigation & livestock
thaba-bosiu rural development
thaba-tseka mountain area development
senqu river rural development
30° SOUTH
28° EAST
scale 0 10 50 km

The lowlands, with one-quarter of the country's surface area, are inhabited by 50% of the population (major agricultural crop area). The foothills are occupied by 30% of the population (mixed farming areas). Mountain regions are occupied by the other 20% of the population engaged in herding.

There is significant variation in resources between types of school ownership and between schools located in the lower (more desirable and accessible) locations and mountain locations. RCMs (Roman Catholic Mission Schools) have better resources than LEC. (Lesotho Evangelical Church in most districts. In terms of spatial patterns of resource allocation

MAP 2

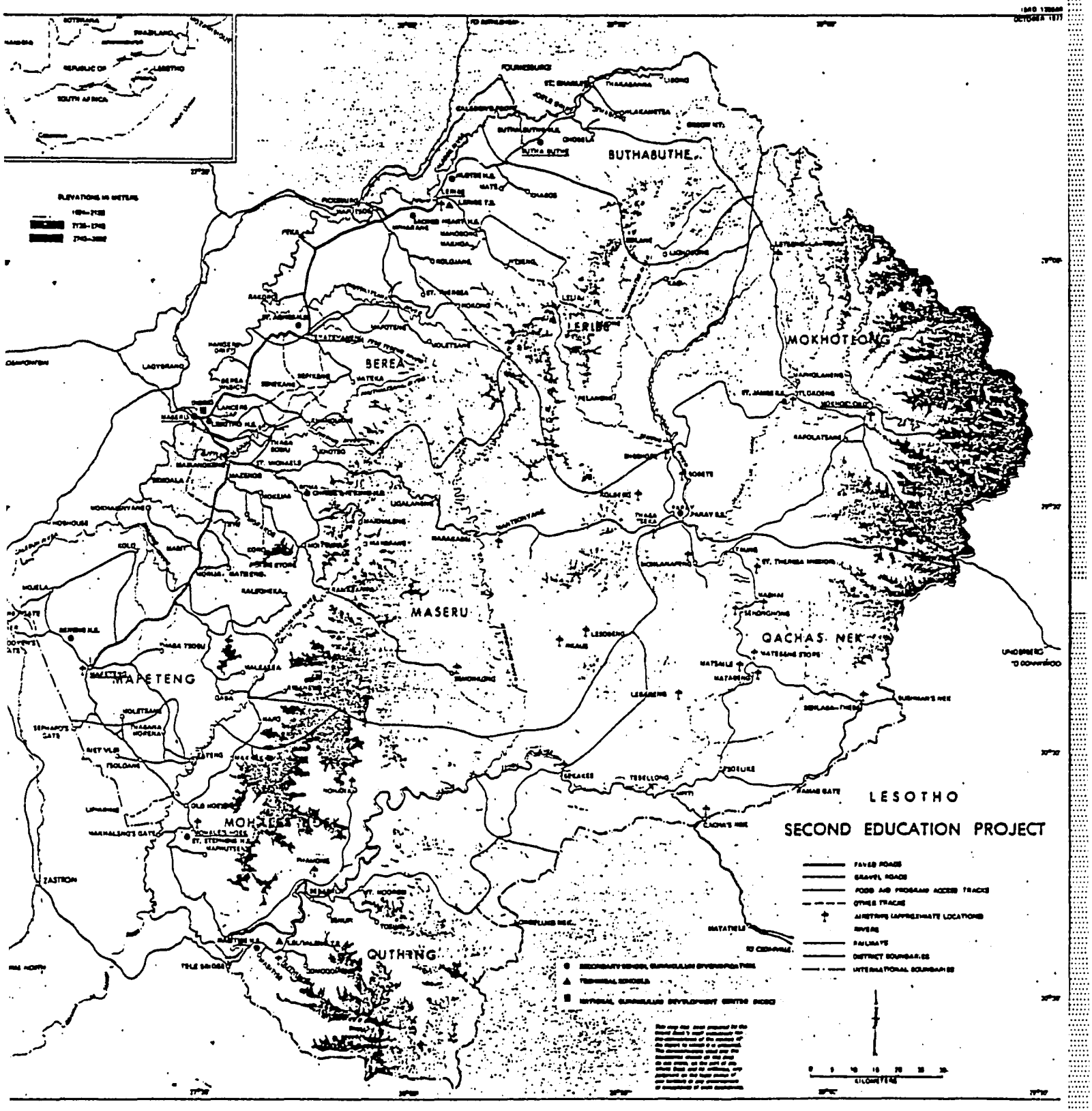


POPULATION DISTRIBUTION

there is a concentration of education resources (e.g., capital and social infrastructure) in the lowlands of the western plateau.

Popils per trained teacher and pupils per classroom are worst off in the highland locations. Similarly, the percentage of best qualified teachers in highest in Maseru District Headquarters, while the percentage of least qualified teachers is much larger in the mountains.

MAP 3


BUTHABUTHE
LERIBE
BEREA
MOKHOTLONG
MASERU
QACHAS NEK
MAFETENG
MOHALES HOEK
QUTHING
LESOTHO
SECOND EDUCATION PROJECT

Housing Situation in Relationship to IMRC Project

1. By the end of FY 1980, when Phase II of the project will be underway, AID will have 56 houses for 63 technicians. It is projected that the GOL will be providing five houses, and two apartments will be rented on the open market. These projects do not include PVO's for whom the GOL will be providing 3-5 houses and another five or so will be rented on the open market.

2. The GOL housing pool is at present inadequate to meet demand. There are 50-100 expatriate technicians on the waiting list for housing at any one time. Technicians on the waiting list are placed in hotels or other temporary accommodations for six months to a year.

3. The build up on donor assistance programs in 1977 and 1978 also led to supply shortages in the open housing market in 1978. Great difficulty was encountered in placing AID direct hires. The difficulty was overcome only by signing rental agreements with private individuals who would then construct the houses. The extent of housing supply versus demand as of late 1979 and into 1980 is not known. It is known, however, that private entrepreneurs are building houses for the rental market.

4. With respect to the NTTC specifically, 70 faculty members are competing for 7 three bedroom houses, 12 one bedroom apartments and 2 two bedroom apartments.* Those 50 or so who are unsuccessful in competing for NTTC housing make private arrangements, sometimes in the countryside if they are Basotho**, or join the waiting list for GOL pool housing.

5. The NTTC houses were built by the U.K. for their technicians but the GOL, upon their completion, quickly assigned them to others before the U.K. technicians could take occupancy. The U.K. is now actively trying to retrieve its houses for, among others, two of their technicians who have been in hotels for nearly a year and for two others who are being held in the U.K. pending resolution of the NTTC housing question. (The U.K. is holding many other technicians in the U.K. pending arrangement of GOL pool housing.)

6. The 1 bedroom apartments are on the order of a small American efficiency and are not regarded suitable for an American couple.

7. Of the two American technicians now with the IMRC project, Mr. Vogeli is living in one of the U.K. houses and is under pressure to vacate it for a U.K. technician. Mr. Joyner lives in a GOL pool apartment which he was able to obtain by knowing the previous occupant and moving in as his predecessor was departing. Mr. Joyner is leaving in August and it is not regarded possible to hold the apartment for AID proposes until the Phase II technicians arrive in January 1980 or later.

*This housing is on the NTTC grounds and is over and above the GOL pool housing.
**Basotho end up on the waiting list longer than expatriates which is giving rise to hard feelings.

Housing/Technicians

	79		80		81		82	
	Houses	Technicians	Houses	Technicians	Houses	Technicians	Houses	Technicians
1. SADPT, 0030	8	2	8	1	8	-	8	-
2. Thaba Bosiu, 0031	5	1	5	-	5	-	5	-
3. Land & Water, 0048	3	5	3	3	3	-	3	-
4. LASA, 0064	3	4	3	5	3	5	3	5
5. NUL, 0080	2	2	2	2	2	2	2	4
6. Rural Health, 0058	3	4	3	4	3	4	3	4
7. Farm. Sys. Res., 0065	6	7	6	9	6	9	6	9
8. SAMDP, 0069	10	4	10	19	10	23	10	23
9. Prod. Mktg. Corp, 0101	-	-	3	3	3	3	3	3
10. GLM/ALP, 0208, 0204	-	-	6	4	6	9	6	9
11. Rural Water, 0088	-	-	6	6	6	6	6	6
12. Altern. Energy, 0206	-	-	1	3	1	3	1	3
13. Dev. & Community Plg, 0203	-	-	-	-	-	-	4	4
14. Rural Rds., 0205	-	-	-	-	-	3	-	6
15. IMRC, 0061	-	2	4	4	4	4	4	4
16. Small Scale Ent., 0202	-	-	-	-	-	2	-	2
	*40	31	56	63	60	73	64	82
GOL Houses*	10		5		10		10	
Totals	50	31	61	63	70	73	74	82

*As of 9/79 about 10 technicians will be in GOL houses, leaving about 19 AID constructed houses, the majority of them just completed in Aug. 79, vacant. As more technicains come on board in 1980 and 1980, especially under SAMDP 0069, the number of technicians will catch up with the number of houses.