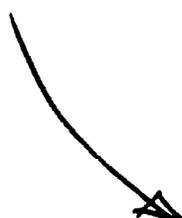


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IEES SOMALIA
END OF PROJECT REPORT
June 1989

DR. SHIRLEY A. BURCHFIELD

IEES RESIDENT TECHNICAL ADVISER
State University of New York
at Albany/USAID

Ministry of Education
Government of Democratic Republic of Somalia

1.0 BACKGROUND

IEES is funded by the U.S. Agency for International Development (USAID) for the purpose of improving the performance of educational systems and strengthening the capacity for educational planning, management and research. Project activities have been carried out in seven countries, including Botswana, Indonesia, Liberia, Nepal, Somalia and Yemen Arab Republic.

IEES involvement in Somalia began in 1984. A Resident Technical Adviser has served with the Ministry of Education since May 1985. The IEES Project in Somalia has focused on strengthening institutional capacity of the Ministry of Education through technical assistance and training in a variety of areas, including project identification, preparation, appraisal and monitoring; donor coordination and research; computer analysis; testing and measurement and teacher training.

The activities carried out from the beginning of IEES project in Somalia through February 1988 are described in a previous report contained in Attachment A (Summary Report on IEES Activities in Somalia, by Dr. Shirley Burchfield, IEES/RTA, Feb. 1988). Selected project accomplishments (through February 1988) described in the report are highlighted below:

1984

- o Somalia Education and Human Resources Sector Assessment
- o Somalia Civil Service Study

- o Design of SOMTAD project paper

1985

- o Arrival of RTA, Dr. Mark Berger
- o Quality Enhancement Study

1986

- o Integrated Strategy
- o Establishment of Office of Donor Coordination to work with Education Sector Donor Coordination Group

1987/1988

- o Collaboration on World Bank Action Plan
- o Installation of Computers
- o Training of MOE staff in computer use
- o 10-day workshop in testing and evaluation for Examination Board
- o Departure of Dr. Mark Berger and arrival of new RTA, Dr. Shirley Burchfield
- o Assistance with UNESCO/World Bank primary project preparation mission
- o 10-day instructional design workshop using in-service teacher training modules (Dr. Sivasalam Thiagarajan and Dr. Shirley Burchfield)
- o Assistance to Teacher Training Department in development of teacher training modules
- o Initiation of Educational Management Information Systems (EMIS) research initiative
- o Initiation of Teacher Incentives research initiative
- o Approval of CIPL proposal for training of MOE and other ministry staff
- o 10-day CIPL-funded computer workshop for 18 members of the Ministry of Education, Ministry of National Planning and Ministry of Labour and Sports

- o 8-day CIPL-funded Central/Regional Inspectorate workshop in organization, management, planning, supervision and data collection and analysis for 45 participants
- o 10-day workshop for 41 participants from the MOE's Examination Board, the Teacher Training Department, Curriculum Development and Planning on procedures for setting and correcting exams and analyzing results

Activities carried out since the publication of the February 1988 summary report are described in greater detail in the section which follows.

2.0 PROJECT ACTIVITIES (MARCH 1988-JUNE 1989)

2.1 Teacher Incentives Research Initiative

As noted in the February 1988 summary report, a two-year research initiative was undertaken in 1987 to provide relevant data, background information, policy recommendations, and analyses of alternatives that would assist MOE policy makers in selecting appropriate strategies to strengthen the teacher incentive system and to achieve improved recruitment, increased retention and effective instruction.

Field research took place in five regions: Bay, Bakol, Gedo, Lower Shabelle, Middle Shabelle during March-May 1988. A total of 201 primary teachers, 52 secondary teachers, 37 headmasters and 47 former teachers were interviewed.

A final report was completed in March 1989. Study findings indicated that the greatest source of teachers' dissatisfaction stems from low salaries; lack of financial incentives; inadequate housing, medical care and food; as well as from low status in the community.

2.2 Educational Management Information (EMIS) Research Initiative

The EMIS Policy Research was initiated in 1987 to provide information for Ministry of Education policy makers in order to improve data collection and analysis procedures and to assist in the analysis and interpretation of national education data.

The study involved three major components. The first component was a study of national level decision makers to determine the types of educational data they believe they need, their satisfaction with the quality of data currently available to them, and their perceptions of the major problems in educational data flow from the local schools to Ministry level. Part two involved a content analysis of educational documents to determine what types of data were already available to decision makers, their sources and quality.

Part three was a study of headmasters', DEOs' and REOs' perceptions of the constraints and problems in data flow between the schools and the MOE. Between May and December, structured interviews were

conducted with 80 headmasters in eight regions, as well as with selected District and Regional Education Officers.

The major findings of the study are summarized below:

1. Most decision makers consider improvements in capacity building in the area of data management at both the central and regional levels to be highly essential.
2. Decision makers consider training in all areas of data collection and analysis to be lacking and would welcome additional training.
3. Decision makers consider the major reasons for unreliable data to be: lack of training; lack of motivation; reluctance on the part of regional, district, and local level staff to provide data; lack of analytic equipment and logistical support.
4. The distribution system for the Annual Headmasters' Questionnaire is not systematic.
5. Data collection is constrained by poor transportation and communication between central administration and by poor record-keeping in the schools; by failure of headmasters to understand what data are being requested and by a lack of incentives for headmasters and DEOs to provide data.
6. The Annual Headmasters' Questionnaire contains items that are confusing to headmasters. It should be revised to clarify ambiguous questions and to add questions not currently included (such as textbook availability).
7. Staff at the district and school level see little use for educational data, mainly because they never see the results of the data they provide. More attention should be paid to sharing the results with the schools, perhaps by providing headmasters with a short written statement describing major trends and developments in the education sector based on annual data.
8. National examination data should be collected by subject area or by items, rather than by total number or percent passing, as it is currently provided.
9. Training in record-keeping and simple analytic procedures is needed at all levels. Headmasters, in particular, need additional training in how to fill out the annual questionnaire.
10. The Annual Statistical Yearbook should be expanded to include a narrative introduction explaining the major trends and issues that are emerging and explaining how to use the tables.

2.3 Teacher Training Modules

As noted in the February 1988 summary report, a series of teacher training modules were developed in Somali and mathematics by the Teacher Training Department. The purpose of these modules was to provide training for teachers in using the new curriculum developed by the Curriculum Development Centre.

2.4 Evaluation Unit

Beginning in February 1988, the IEES RTA assisted the Curriculum Centre in setting up an Evaluation Unit. A number of schools in the areas of Mogadishu and Marka were visited by the RTA and the Head of the Evaluation Unit in May 1988 to get a preliminary idea of how the textbooks and teachers guides are being used in the schools. The evaluation team discovered that few schools had or were using textbooks and almost none were using teachers' guides.

Training seminars were held with the Evaluation Unit over a period of several months in 1988 and 1989. Topics included instrument design, data collection and analysis and classroom observation. Evaluation staff were also trained in using LOTUS 123 and Paradox 2 to analyze data.

As part of the training, four evaluation instruments and classroom observation forms were developed and administered by the Evaluation Unit staff in a small sample of (40) schools in the Benadir region.

The instruments were designed to assess the availability of textbooks and instructional materials in each school, the extent to which textbooks are being used and the opinions of parents, students, teachers and headmasters about the new curriculum.

Results were analyzed by the Evaluation Unit using LOTUS 123 and Paradox 2. Although the findings of the study have not yet been written in final form, preliminary analyses support earlier observations. That is, few teachers have textbooks or teachers' guides. Those who do have textbooks rarely use them because they do not have teachers' guides and do not understand how to use the textbooks.

2.5 Criterion-Referenced Test Workshops

A month-long Criterion-Referenced Test Workshop was conducted by the IEES RTA for 39 participants (September 10 - October 9, 1988). The workshop was a cooperative effort between IEES and UNICEF, with assistance from members of the Evaluation Unit, who helped to prepare materials for the workshop and served as discussion leaders. UNICEF provided funds for the participants' stipends, materials and other associated costs. IEES provided technical assistance, as well as stipends for work carried out by the Evaluation Unit staff.

The workshop consisted of lectures, group activities and individual assignments. During the workshop period, participants developed domain specifications and test items for Grade 1 Somali, mathematics and science curriculum.

A second IEES-funded Criterion-Referenced Test Workshop was held in the evenings during October 25 - November 7. The IEES RTA provided technical assistance for this two-week workshop, which consisted of a smaller working group of 15 participants. The purpose was to evaluate and revise the domain specifications and test items developed during the first workshop for Grade 1 Somali, mathematics and science and to develop domain specifications and criterion-referenced test items for Grade 2 mathematics and Somali.

2.6 Microsoft Word/Ventura Desktop Publishing Workshops

The IEES RTA trained a core group of Curriculum Development Centre (CDC) staff in using Microsoft Word during December 1988. Dr. Sivasailam Thiagarajan conducted a workshop for CDC staff in Ventura Desktop Publishing in January 1989. The head of the computer unit, Abdulkadir Hassan Ahmed then continued training other CDC staff in using Microsoft Word and Ventura during the next few months. This effort was highly successful, and most of the CDC secretaries are now using Microsoft Word and Ventura Publishing to typeset CDC curriculum.

2.7 On-Job-Training for Planning Department

On-the-job training in using DBASE III Plus was carried out for the Planning Department in April and May 1989. Activities focused on the development of a disk directory, using DBASE III. Staff members examined and cataloged the department's disk files, dating back to 1985. A more efficient method of storing and retrieving data was developed, and staff were trained in its use.

2.8 Advanced Computer Training

Advanced training in LOTUS 123 was conducted by Planning Department staff for eight Administration, Personnel and Planning staff members.

2.9 IEES/CIPL Activities

A number of IEES activities were carried out with support from 3.5 million Somali Shillings provided by USAID CIPL funds. These activities included the following:

2.9.1 Primary Headmasters' Workshop

A 24-day workshop was held in Ceel Jaale (Marka District) in November 1988 for the purpose of training headmasters in classroom management, data collection, storekeeping, office

management and record-keeping procedures, as well as in procedures for filling out the annual headmaster questionnaire.

There were 91 participants (41 participants funded by IEES and 50 by UNICEF), from Lower Shabelle and Bay region. Materials were developed by an inter-departmental training team, with assistance from me. In addition, five department heads served as resource persons. Lectures were presented by the Training Team and members of the Planning Department staff, as well as by the IEES RTA.

2.9.2 Computer Workshops

- o A 10-day advanced computer workshop was held in October 1988 for MOE Planning and Administration staff who participated in earlier IEES/CIPL-funded introductory computer workshops.
- o A 17-day workshop on WANG Word Processing was held for the Examination Board staff in October 1988.
- o Advanced on-the-job training in DBASE III for three Planning Department staff members was held in December 1988 and January 1989. This involved approximately two-hours per day of personalized instruction.

2.9.3 Teacher Training Workshop

A Teacher Training Workshop was held for 43 teachers in Baydhoba in January and February 1989 by the Teacher Training Department, using the modules developed with earlier with assistance from the IEES Project. In addition to providing seminar lectures and practice, teacher trainers observed teachers using the techniques in the classroom and provided them with feedback.

Teachers' responses to the modules were favorable, and they have requested additional training of this type. Similar teacher training modules in Arabic, Somali and Science are also being developed by the Teacher Training Department.

2.10 Donor Coordination

As previously noted, both the current IEES RTA and the previous adviser, Dr. Mark Berger have played a very active role in coordination of donor activities in the education sector.

In particular, the development of the World Bank Action Plan in 1986 and 1987 by a coordinating committee, with leadership from the World Bank staff member, Dr. George Beier, the UNICEF

representative, Ms. Sandra Hagi and the IEES RTA, Dr. Mark Berger, paved the way for the initiation of the Fifth IDA Loan to the Primary Education Sector.

IEES involvement with the World Bank continued during 1987-1989 (see February 1988 IEES Summary Report). The IEES RTA played an active role in the pre-appraisal studies carried out from September 1988 through May 1989, serving as interim coordinator for the appraisal team and as the team leader for the study of school supervision, inspection and management.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Over the past few years the Ministry of Education, and ultimately the educational system in Somalia, have realized substantial benefits from the IEES Project. The early studies carried out at the inception of the IEES project made a significant contribution toward describing the condition of education in Somalia and identifying specific problems, along with strategies for addressing them.

Most of the IEES activities have been aimed at helping the Ministry of Education staff to acquire the skills necessary to adequately assess and resolve problems with the educational system, rather than relying on outside consultants to provide the solutions. This approach is a reflection of the philosophy that the deficiencies in the educational system cannot be remedied without the commitment of a Ministry staff as

with the institutional capability to address problems in-house. Consequently, most IEES activities have been aimed at providing training and technical support. At the conclusion of the first five years of the IEES Project, this approach appears to be a valid one.

The Ministry of Education staff, as well as staff of a number of other ministries, have made substantial progress in developing skills in a variety of areas, including data collection and analysis, computer database development, development of teacher training materials, testing and measurement and planning and management.

Although there has been some staff turnover during this period, most of the original staff who received training through the IEES Project are still employed by the Ministry. This, in itself, is rather remarkable considering the low salaries MOE staff are paid relative to the rising cost of living.

Many of the participants who benefitted from IEES training were able to provide training for their colleagues, particularly in the area of computer use and data analysis. Even if a substantial number of staff were to leave over the next few years, the investment in training has already provided substantial payoff.

Since the installation of microcomputers in the Planning Department and the subsequent training of staff in their use, time required to compile the Annual Statistical Yearbook, which was previously done by hand, has

been cut in less than half. In addition, ad hoc requests for information can now be produced in far less time.

Similarly, the Curriculum Development Centre, which was previously typing all curriculum on a typewriter and producing all graphics by hand, is now adept at using desktop publishing systems and graphics packages to design, produce and revise curriculum materials. In addition, the Director of the Curriculum Development Centre, Hassan Dahir Obsiye, has familiarized himself with the latest technologies, software systems and their applications, and is able to make very informed decisions about the technical needs of the CDC and the best systems for meeting these needs.

3.1 Research Initiatives

The two research initiatives, Educational Management Information Systems and Teacher Incentives, have provided valuable information that will assist the MOE in future planning efforts. The Planning Department should be commended on doing an outstanding job in carrying out this research. The studies have, in fact, received considerable praise from MOE department directors and others who have reviewed the materials. In addition, the practice MOE staff received in conceptualizing a research problem, developing the methodology, designing the questionnaire and collecting and analyzing the data has been invaluable. Staff have gained useful insights into the problems facing researchers, as well as ways of overcoming them. After reviewing the "lessons

learned" from this experience, research staff have made the following observations and suggestions for improving future research:

1. The most crucial stage of research is in the development and administration of the questionnaires. Each question should be carefully scrutinized to ensure that the wording relays the intended meaning and that the vocabulary is at the level appropriate to the training and experience of the respondents.
2. Major research initiatives, such as the EMIS and Teacher Incentives research, in which lengthy questionnaires are employed, should pay particular attention to the structure and layout of the questionnaire. As many of the questions as possible should be in structured (closed-ended), rather than open-ended format. This would save a tremendous amount of time in coding and entering data into the computer. In fact, the questionnaire itself can be designed in such a way that very little recoding is necessary.
3. It was discovered early-on that delivering the questionnaire to respondents to be later filled and returned, rather than conducting personal interviews was not a workable technique. Because of language differences and varying levels of education, it is often necessary for

interviewers to clarify even those questions that researchers initially think are self-evident.

4. Although both the EMIS and the Teacher Incentives research initiatives included training of enumerators, much more emphasis needs to be placed on such training. Research findings revealed that many of the respondents either did not correctly understand the questions or did not answer the questions in sufficient depth to be meaningful for the analysis. The use of probing techniques can help to alleviate this problem.

3.2 Funding Mechanism

Because of difficulties in communication between the field and home office, as well as delays resulting from the local bank, the IEES Project in Somalia was plagued with "cash flow problems" from beginning to end. Although the home office did a commendable job in attempting to resolve, any future IEES activities must find a more workable method of providing project funding.

A number of efforts have been made by the home office to remedy these problems, including depositing funds directly into the accounts of project directors, as well as in the account of the IEES RTA. In addition, for many activities, personal services contracts were arranged and the contractor was paid by check.

Although the mailed check procedure has its own set of problems, including lost checks, slow mail etc., this seems to be the most workable solution. Clearly, there are many activities that cannot be handled in this manner. However, because of difficulties with the banking system and the length of time required to receive wire transfers, the number of direct deposit transactions should be kept to a minimum.

Furthermore, depositing funds directly into the account of the RTA should be avoided, if possible. This can be resolved by having the RTA open a project account with his or her bank (in the U.S.) and maintaining a minimum balance throughout the project. However, it is also incumbent upon the RTA and the local research staff to submit receipts in a timely manner in order for this procedure to work efficiently.

In the past, because of the time required to process receipts and provide reimbursements for stipends and small project expenditures, the RTA was frequently in a position of paying project costs for workshops and supplies with personal funds, sometimes amounting to as much as \$4,000, which was not reimbursed for several months. Despite the convenience of such an arrangement, this places an undue burden upon the RTA.

3.3 Future Directions

As the first phase of the IEES Project draws to a close, a decision must be made concerning whether to continue IEES efforts in Somalia. Clearly, in a country like Somalia, where resources are limited progress is extremely slow. However, IEES activities have made a substantial contribution to the education sector in Somalia and should be continued.

It is particularly important to have IEES representation in Somalia at a time when the World Bank is about to launch a major educational development project. Because of the success that has been realized by the Planning Department in collecting and analyzing educational statistics, as well the critical nature of the tasks facing the MOE in the near future, the World Bank team leader has urged that IEES continue to have a Resident Technical Adviser at the MOE.

IEES future activities should include, but not be limited to:

1. Continuation of training in use of the computer, with increased emphasis on statistical analysis techniques and long-range forecasting.
2. Continuation of training of CDC staff in Microsoft Word and Ventura Desktop Publishing.

3. Continuation of work with the CDC Evaluation Unit in instrument design and classroom observation.
4. Continuation of work with the CDC and the Exam Board in testing and measurement.
5. Continuation of work with the Teacher Training Department, in their efforts to expand the teacher training modules to other subjects and grades. Emphasis should also be placed on conducting follow-up to training workshops to determine the extent to which the methods taught in the seminars are being followed and to provide teachers with continuous feedback.
6. Much greater emphasis should be placed on visits to the schools by all level of staff, including teacher trainers, curriculum evaluators, inspectors, Planning department staff, and others. It is only by actually going to the schools, talking with the teachers and headmasters, observing classes that MOE staff can get an accurate picture of what is actually happening in the classroom. IEES should play a far greater role in facilitating this interaction.
7. Follow-up to the recommendations of the EMIS and Teacher Incentives research initiatives.

SOMALIA

PRIMARY EDUCATION REHABILITATION PROJECT

IDA/UNDP Preparation Mission (January 26 - February 16, 1989)

Aide-Memoire

Introduction

1. An IDA/UNDP mission visited Somalia from Jan. 26 to Feb. 16, 1989 for the preparation of the Somalia Primary Education Rehabilitation Project. The mission, led by Mr. Abdun Noor, senior planner (AF2PH, World Bank), comprised five other experts as follows: Mr. Richard Sack, leader of the preparation team, consultant economist; Mr. Swadesh Bose, World Bank staff, economist; Mr. T. Srikantaiah, World Bank staff, textbook specialist; Mr. Xavier Nuttin, consultant architect; and, Ms. Sherry Kieth, consultant educator. Annex 1 provides a list of the principle officials met by members of the mission.

2. The mission's work was based on that of the previous mission of Sept. 25 - Oct. 16, 1988 and subsequent discussions with World Bank management and other donor agencies. The decision to change the name of the project (from "Human Resource Development" to "Primary Education Rehabilitation") is based on recognition of: (i) the seminal role that primary education plays in the development of human resources; (ii) the severe decline in the quality of primary education in Somalia; and, therefore, (iii) the priority that must be accorded to the rehabilitation of this sub-sector of education in order to improve the development prospects of the country. For these reasons, plus the fact that concentration of effort will increase the likelihood of effective and efficient implementation, the mission recommends that the project concentrate on the rehabilitation of primary education.

3. The mission's findings and recommendations are presented in this aide-memoire. They are subject to confirmation by IDA management.

4. The mission would like to thank the Government of Somalia and the Ministry of Education and Culture, in particular H.E. the Minister Mr. Abdullahi Mahamed Mire, H.E. the Vice-Minister Mr. Yousouf, and Mr. Isak Jama Warsama PIU Director and Executive Secretary of the National Preparation Task Force, for their kind help and attention. Also, the mission would like to express its appreciation of the work that has been accomplished since the departure of the previous mission, including both the realization of studies and the progress made on policy related matters.

Issues Related to Incentives and the Financing of Primary Education

5. The declining share of Government's resources to education has been well documented. It is generally agreed that this is the major reason for the severe decline in enrollments and in the quality of primary education. The unit cost per primary school pupil of about SoSh 950 (the equivalent of about US\$ 4) is far below the average for similar African countries (about US\$ 49). In order to rehabilitate primary education, a major increase in the share of education in the Government's ordinary budget is urgently required. Government's intention to increase this share in the 1989 ordinary budget to almost 5%, if implemented in actual

expenditures, will represent an important factor for the rehabilitation of sector and pave the way for further World Bank processing of the proposed project. Sustainability of the considerable investment resources that the proposed project would provide will require the Government to bear operating and maintenance costs, as well as decent salaries for those (teachers, headmasters, inspectors, MOEC technical staff, etc.) working in the education sector. Otherwise, the project's objectives will not have been fulfilled and its investments would be in danger. Community contributions in financing recurrent costs, especially in the poorer areas, should not be overestimated.

6. The mission has roughly estimated that, given the critical inputs of the proposed investment, effective rehabilitation of primary education will require raising the share of education to a minimum of 6% in the Government's ordinary budget for 1990. Given that (i) primary education's share of MOEC's ordinary budget is around 40-45%, and (ii) there is little room for shifting budgetary resources from post-primary to primary education, 6% for education is the minimum necessary to ensure effective operation of the primary education sub-sector in the context of the investments of the proposed project. Agreement on this issue will be a condition of project appraisal.

7. Increased budgetary expenditures will be required mainly for the sustainability of two major and critical aspects of the proposed rehabilitation effort: (i) increased teacher salaries/allowances; and, (ii) provision and delivery of textbooks and teaching materials to students and teachers. The bulk of the increased budget for primary education will be needed to provide incentive level salaries/allowances to teachers and other officials in the system (e.g., inspectors, regional and district officers, technical staff at the central ministry, etc). In order to attain the necessary sustainability (i.e., a minimum salary for a reasonable living), teacher income will have to be raised (in real terms) by 40% in January 1990 and by another 40% in January 1991. Agreement on this issue, in consultation with the Ministry of Finance, will be a condition of project appraisal; also, the mission will recommend to IDA management that effective implementation of this policy be monitored by IDA supervision missions and be a condition of continued project disbursements.

8. In order to ensure that increased salaries/allowances will benefit working teachers, it will be necessary to determine their numbers, as opposed to the number of teachers on the payroll -- the former are estimated at 4,300, whereas the latter number is substantially higher. In recent months, MOEC has made progress in narrowing the discrepancy by removing some of the non-working teachers from the payroll. The mission recommends that progress on this matter continue so that the payroll/establishment number will be identical to the number of actual teachers working in the classrooms.⁴ It is agreed that a proposal for a

⁴ The mission has made the following estimate of the costs of this discrepancy. The estimate is based on the following: (i) there are about 12,000 teachers on the payroll and/or the establishment; (ii) there are about 7,000 teachers working in the classrooms at all levels of the system; and, (iii) salaries represent about 70% of MOEC's ordinary budget. Therefore, about 40% of the teaching personnel are not at their assigned

mechanism to eliminate this discrepancy will be forwarded to IDA before project appraisal.

9. Provision and delivery of textbooks, teaching materials and supplies will be another major component requiring increased budgetary resources. Although the resources of the proposed project would provide considerable support for a large part of the costs of textbook production, national resources will need to be raised to finance this critical element of the primary education process, especially after the period of project implementation. While parental and community contributions should be mobilized to finance a part of the needed costs (for example, taking delivery of the books), the ordinary education budget will need to allocate much larger amounts to this in order to ensure sustainability of this component of the proposed project.

10. The need for a structure of teacher incentives is based on the following considerations: (i) teacher salaries make up some 70% of MOEC's ordinary budget; (ii) the high costs of pre-service teacher training (estimated at SoSh 80,000 per trainee per year); and (iii) the high rate of teacher attrition (estimated at 20% per year). The question of pre-service teacher training needs is linked to these three points. Furthermore, points (ii) and (iii) provide strong indication that an attractive teacher incentive structure would have the double effect of being: (i) a financially sound measure (since the cost of training one teacher represents about six years salary); and, (ii) pedagogically sound since teachers who would make teaching their career (rather than leave after an average of four years) would be more motivated, more experienced and better teachers than is presently the case. These issues are discussed in detail in Annex 2, which demonstrates the high cost of the high rate of teacher attrition. In this context, the mission agrees with MOEC's proposals concerning the teacher career structure. The mission recommends that further discussion on this issue, along with more extensive policy measures (in addition to salary/allowance increases) designed to reinforce the career structure of primary school teachers, be the object of the forthcoming missions. A Government proposal concerning the linking of incentives with in-service training and career structure (see para 13), including the salary pay scales and the criteria and mechanics for promotions within the profession (teacher to headmaster to inspector/DEO to REO, etc) will be a condition of appraisal.

Proposed Project Components

11. Based on extensive consultations with MOEC officials and staff, as well as the findings of the previous mission, the recommendations of the preparation team concerning the content of the proposed project are outlined below. Each project component will be the object of a Working Paper. These Working Papers will be completed by March 1 and will include: (i) details on the contents of each component; (ii) implementation activities and schedule; (iii) component costs; (iv) suggested mechanisms

posts. Since 40% of 70% = 28%, the mission concludes that MOEC could recuperate for the purposes of education (in the classroom) an amount equivalent to about 25% of its ordinary budget.

for monitoring and evaluation, where appropriate; (v) work pending for appraisal; and, (vi) terms of reference for technical assistance, study tours and fellowships.

12. In-service training for teachers and headmasters.

<u>Objectives</u>	<u>Activities</u>	<u>Proposed Financable Items</u>
1. Develop in-service training materials	a) overseas training for subject area specialists; b) writers workshop; c) materials development and production; d) evaluation/revision of materials via field workshops and visits.	a) 4 fellowships (short-term); b) All costs; c) Technical assistance; paper & supplies d) One short-term fellowship; 1 month technical assistance; 1 vehicle; costs of field visits; materials & supplies.
2. Develop training capacities	a) Overseas training in teacher training; b) In-country workshop for 45 trainers; c) DEO training workshops.	a) 4 short-term fellowships (PPF funding); b) 1 month technical assistance plus all costs; c) all costs of workshops.
3. In-service training for primary teachers	Training for approximately 1,500 teachers.	All costs
4. Design training for headmasters	a) Overseas training in school management; b) Development of training materials.	a) 1 short-term fellowship; b) one month of technical assistance; materials.
5. Improve school management (and data collection) by training of headmasters	Multi-sectoral training for about 300 headmasters.	All costs

13. The mission recommends, and MOEC agrees, that support for the in-service teacher training component be contingent upon a governmental guarantee that upon completion of the proposed two-year in-service training program: (i) teachers would be promoted by one salary grade; and (ii) their supplemental allowances would be increased to an attractive level. The pre-appraisal mission would seek assurances from the government that these commitments are made as a condition for appraisal. Also, the mission recommends that headmaster training include course content on the importance of educational statistics and how to fill out of the school statistics forms.

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14. Improving inspection.

<u>Objectives</u>	<u>Activities</u>	<u>Proposed Financable Items</u>
1. Establish an administrative/operational framework.	Intra-ministerial task force.	Four months technical assistance.
2. Develop in-country inspector training capabilities	a) One short term overseas training course b) Design, writing, and revision of training materials c) Training trainers.	a) 1 short-term fellowship b) 3 months technical assistance; 3 three week study tours; materials for training modules. c) 1 month technical assistance; all costs of a 30 day in-country training course for 8 persons.
3. Upgrade professional capabilities of Central Inspectorate, Regional Inspectors, DEOs and REOs	In-service training	All costs of 30 day in-country training courses during PYs 2-4 for 35 participants each year.
4. Logistical support to central & regional inspectors; plus DEOs in Bay, Gedo and Lower Shabelle	a) Construction, rehabilitation, or extension of facilities for regional educational authorities, where needed; b) Provision of transportation.	a) construction and equipment of 3 offices (detailed proposals will be ready before appraisal); b) 20 vehicles.

15. It is agreed that upon return from fellowship leave, the director of the Central Inspectorate may have further suggestions for this component. These could be discussed with the subsequent IDA missions.

16. Upgrading the Examination System.

<u>Objectives</u>	<u>Activities</u>	<u>Proposed Financable Items</u>
1. Professional development for SEB staff	a) 4 in-country workshops for SEB staff; b) Overseas training in measurement and evaluation; c) Study tour of other examination boards for director and one staff; d) examinations development for primary school leaving exam in maths, language, science and social studies.	a) 4 months technical assistance for workshops; b) 2 ten month fellowships for SEB staff; c) 2 study tours in three countries; d) 8 months of technical assistance (2 months annually).
2. Improve operational efficiency of SEB	procurement of equipment and supplies for SEB and regional examinations officers	All necessary items (see working paper).

17. In order for the Somalia Examinations Board to effectively carry out its responsibilities efficiently and effectively, SEB needs: (i) a core of well trained professionals; (ii) administrative autonomy; and, (iii) financial independence. Currently the Board is attached to the Director General, MOEC. While this is desirable, insofar as it places the Board with access to an upper level within the Ministry, this arrangement has certain disadvantages. These include the lack of communication with other directorates of the Ministry with which the Board needs regular contact, both operationally and in terms of Ministry policy. Examples are the

importance of continuous operational contact with the CDC, teacher training and school inspection and the lack of budgetary independence to implement the Board's annual work program. It has been agreed that the Ministry will appoint an intra-Ministerial task force to study the status of the SEB and draft terms of reference for the Board which would upgrade its status as well as augment its budgetary autonomy. It is suggested that these terms of reference be presented to the pre-appraisal mission and that formalization of the Board's organizational and financial status be a condition for negotiations.

18. Textbooks. The basic objective of this component is to promote the use of textbooks in the schools. In order to accomplish this, the mission has explored several possibilities and arrived at the following conclusions:

<u>Objectives</u>	<u>Activities</u>	<u>Proposed Financeable Items</u>
1. Manuscript preparation	a) Training activities for CDC staff; b) Desktop publishing.	a) About 9 overseas fellowships; in-country training for ? CDC staff, including technical assistance and all costs. b) Upgrading of present equipment.
2. Teacher guides	Procurement of guides for grades 1-8; calculations based on a total of 5500 classes and 6240 teachers in 1988/89.	Procurement by the most cost-effective means.
3. Textbooks	Procurement of textbooks, assuming a ratio of 2 pupils per book; calculations based on: (i) 4 books for grades 1-4 and 7 books for grades 5-8; (ii) about 150,000 pupils in 1988/89 and, therefore a total need of about 500,000 books.	Procurement by the most cost-effective means.
4. Storage and distribution	Storage in Mogadishu and delivery to districts will be considered as part of the procurement process.	Storage and distribution by the most cost-effective means.

19. The mission has studied carefully the issues of procurement, storage and delivery from the perspectives of cost effectiveness and ease of implementation. The mission has concluded that the most cost-effective means of procuring textbooks is from the State Printing Agency and that the next most cost-effective means would be through international competitive bidding procedures (ICB). An investment in MOEC printing facilities would not be justified economically and, furthermore, would not be ready for production before 3-4 years. Recognizing the management problems involved in procurement from SPA, the mission recommends that, as a condition of appraisal, a formal agreement (including procedures and dates) be reached between MOEC and SPA concerning the printing of a specified number of textbooks per year. The project would finance all printing costs. Procurement, including delivery of the materials to the districts, would be a management function of the PMU. See Annex 3 for an in-depth analysis of this issue.

20. Physical rehabilitation. The objective of this component is to improve the teaching and learning conditions in primary schools of the Bay,

Gedo and Lower Shabelle regions through provision of an adequate physical space, suited to both pedagogical and environmental requirements. This will be achieved through either rehabilitation of existing classrooms or construction of new classrooms to replace the Arish-type classrooms, or to meet increased enrollment needs. The required number of classrooms is based on projected enrollments for 1996 (see Annex 2). Communal spaces (store room, teacher office, community space), services (water, latrines, site development) and staff housing will be provided in order to increase the use of the school facilities and make them more accessible to the community as a whole. Also, the regional and district level administrations (in the three project regions), upon which the all aspects of the project rely heavily for successful implementation, will be provided with office facilities, furniture, equipment and vehicles.

21. Two issues have been discussed, with the following agreements reached:

a) teacher housing: The mission recommends that the project provide staff housing for each headmaster (one per school) and for 50% of the female teaching staff (based on figures collected during the November school survey). All staff housing will be located on the school compound and maintenance will be the responsibility of the teachers with assistance from the CEA. It has been agreed that: (i) appropriate sizes of staff housing be about 70 sq. meters for headmasters and 56 sq. m. for the female teachers; and; (ii) furniture for staff housing would be responsibility of the teacher-occupants.

b) refugee children: MOEC has informed the mission that schools for refugee children would not be included in the project since the education of these children is not the responsibility of MOEC.

22. Support for Community Education Associations. The objective of this component, intended to operate closely with the physical rehabilitation component and to be of an experimental nature, is to test the prospects of developing community participation in the financing (in kind and/or cash) and management (such as taking delivery of textbooks and food-for-teachers from the district headquarters) of their schools. In order to promote this, the project would finance:

(a) salary and allowances for four community education officers, one to be located at the project management unit in Mogadishu and the others at the regional headquarters;

(b) office space and vehicles, which would be shared with the physical rehabilitation component;

(c) training of a core group of community workers at the district level (e.g., ?????????????);

(d) operating expenses for travel within the regions and from Mogadishu to the regions; and,

(e) a small fund, to be managed by the centrally based community education officer, intended to encourage selected income generating activities by the CEAs. The details of this have yet to be worked out.

23. Because of the experimental nature of this component, it will be necessary to closely monitor its implementation and develop an evaluative framework to permit careful evaluation of its impact. Any further development of this type of component would depend on information received from this monitoring and evaluation.

24. Planning and management. The general objective of this component is to improve MOEC's ability to manage the development of the educational system through the increased use of information at all levels. This would include the use of information as input into: decisionmaking; planning the future growth of the system and associated financial requirements; and, the on-going management of the system. With the increased budgetary resources allocated to the education system, it becomes increasingly important to strengthen MOEC's capacities to plan and manage the sector in an effective and efficient manner.

<u>Objectives</u>	<u>Project Inputs</u>	<u>Implementation Issues</u>
1. Improve the reliability of data collection.	Training and workshops for regional staff; transport capacities in the regions and for the Statistics Section.	-Clear definitions of the roles & functions of inspectors, regional officers & headmasters; -Incorporation of statistical work into <u>routine</u> aspects of inspectors' work.
2. Improve the capacities of Statistics and Computer section to use data for analytical work.	Data processing equipment, software & training; advanced and intermediate training for staff; periodic technical assistance to advise on data input, analysis and training.	-Coordination of data collection; -Development of appropriate methodologies & analytical approaches that will yield results usable for planning & decisionmaking.
3. Applied policy research for the development of viable investment strategies and education plans.	Establish a fund for applied educational policy research.	- Administration to be decided; it must ensure that research activities are linked to practical and policy concerns of human resource development, and that results will be usable, and used, in development of investment strategies and plans.
4. Evaluation research.	In-country & overseas training; seminars & workshops; periodic technical assistance; 1 vehicle.	- see Annex 4 (Monitoring and Evaluation).
5. Improve financial management. -personnel management -budget preparation and implementation procedures	Training, equipment; technical assistance for personnel management and budgetary procedures; study on effective personnel management and problem of non-working teachers on the payroll; study on financial management procedures (especially regarding payment of teachers).	- This requires commitment & coordination at all levels, especially regarding availability of information. -Procedures need to be established to apply results (e.g., of projection models & information regarding paid teachers not teaching) to budgetary and expenditure practices.
6. Improve the functional organization of MOEC	-Study on organization and management	-How will the study's recommendations be implemented: process and procedures.
7. Improve capacities of primary education management	Equipment and training.	-The distinct role of Dept. of Primary Education with respect to teachers and Koranic schools.

Project Management, Supervision, Monitoring and Evaluation

25. The management functions of the proposed project take on special importance in the context of: (i) comparison the financial importance of the project with MOEC's annual budget; and, (ii) the strategy by which the proposed project would be the first phase of a longer-term commitment by IDA toward the development of primary education, in particular, and the human resource sector, in general. It is essential, therefore, that management and implementation of the project procede efficiently and effectively. Also, it is important that the lessons learned from the proposed project be used for the development of future policies, plans and investment strategies for the education sector. However, it is necessary to distinguish between management and implementation. In principle the latter is the responsibility of the concerned departments and sections of MOEC. Recognizing the limited capacities of the school building section to implement large-scale programs (such as proposed component) it has been agreed that the implementation of physical rehabilitation will be performed in the unit responsible for project management. This decision has been made in the interest of institution building. The advisability of transferring this function (and section) back to the central ministry will be evaluated on an annual basis. Given these general considerations it has been agreed that the proposed project would be managed by the PIU presently established within MOEC. However, the mission recommends that the name of this unit be changed to "Project Management Unit" (PMU).

26. In order to ensure effective and efficient management of the implementation of this large scale education project, the PMU would have the following functions:

- (a) financial management of all project related accounts;
- (b) procurement of all project financed equipment and materials; This would include storage and delivery to the level of implementation;
- (c) the implementation of experimental activities and/or those for which there is not presently a section within MOEC sufficiently strong to implement them;
- (d) project monitoring, plus evaluation of activities implemented under (c) above; and,
- (e) administration of the PMU, including preparation of annual reports for IDA, the organization of joint MOEC/IDA reviews of project implementation, and communication with IDA.

27. In order to accomplish the tasks associated with these functions, the PMU would be structured four sections (Financial Management & Procurement; Educational Facilities; Education; and, Administration). Also, the project would finance three full-time external consultants in the areas of education, educational facilities, and financial management & procurement. The project would finance all PMU costs, including equipment, technical assistance, operating costs and allowances for national staff.

28. Project supervision, monitoring and evaluation. Given the

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context of the proposed project (see para 25), the functions of supervision, monitoring and evaluation take on special importance and will be integrated into the implementation and management of the project. Agreement has been reached on the following mechanism: (i) annual joint MOEC - IDA reviews of project implementation would be organized in order to review the progress made during the previous year and determine, in a detailed fashion, the activities to be financed by the project for the subsequent year; and, (ii) a team of external consultants would be contracted to help prepare and organize these joint reviews and the supervision, monitoring and evaluation information upon which they would be based; this could be a team of two experts who would perform two week, semi-annual missions each year of the project. Annex 4 discusses in detail this very important aspect of the proposed project.

Other Donors

29. The World Food Program has indicated its agreement for the provision of food-for-work to teachers in the three project regions. It is expected that this activity would be managed by the project management facilities of the proposed IDA project. This would promote economies of scale for such aspects as monitoring and logistics (e.g., the same vehicles could be used for transport of food, building materials and textbooks).

30. The United Nations Capital Development Fund has indicated interest in financing rehabilitation efforts (including CEA support) in the region of Middle Shebelle. This would constitute "parallel co-financing" in that these activities would be based on the IDA project design and implementation mechanics. Furthermore, the UNCDF-financed activities would be managed by the same project management infrastructure set up under the proposed IDA project.

Next Steps in Project Processing and Timetable

31. IDA proposes to field a small pre-appraisal mission toward the end of March. Before then, the working papers would have been received by MOEC. These working papers will be discussed in detail with the pre-appraisal mission and revised and/or completed, where necessary. The timing of subsequent steps would be discussed with that mission.

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LIST OF PRINCIPAL OFFICIALS MET

Ministry of Education and Culture

H.E. Abdullahi Mahamed Mire	Minister
H.E. Yusuf Abdi Ibrahim	Vice Minister
Mr. Ahmed Saed Karshe	Director General
Mr. Isak Jama Warsame	Director, PIU and Executive Secretary of the National Preparation Task Force
Mr. Hussein Mohamed Said	Director, Education Development
Mr. Adan Mahamed Hagi Abdi	Director, Administration, Finance and Personnel
Mr. Ali Hassen Ga'al	Director, Planning Department
Mr. Ahmed Said Derie	Director, Teacher Training
Mr. Yasin Hasen	Director of Schools
Mr. A. M. Abtidon	Director, Primary Education
Mr. Hassan Dahir Obsive	Director, Curriculum Development Center
Mr. Hussein Dirie	Director, Adult Education
Mr. Gedi	Director, Non-Formal Education
Mr. Mohamed Barro Hassan	Vice Chairman, Central Inspectorate
Ms. Faduma Sherif Noor	Director, Institute of Women's Education
Ms. Mariam Farrah Warsame	President, Somali Academy of Sciences and Arts (SASA)
Mr. Ahmed Arin Hanghe	Dean, Institute of Arts, SASA
Mr. Mohammad Ali Hussein	Director, National Science Research, SASA
Mr. Aboud Mussad	Deputy Rector, Somali National University (SNU)
Mr. Mohamed Ismail S. Osman	Dean, Faculty of Economics, SNU
Dr. Mohamed Nuuh Ali	Dean, College of Education, Lafole
Mr. Shariif Ali	Head of the Central Store

Other Ministries and Government Bodies

Mr. Bashir	Officer, Dept. of Rural Development, Ministry of Interior
Mr. Mohamed Essa Abdi	Director, Planning and Construction, Ministry of Works and Housing
Mr. Alvo Helms	State Printing Agency
Mr. Abdirahman Mohamed Elmi	State Printing Agency
Mr. Sherif Ahmed Omar	Director, Somali Engineering Consulting Agency
Mr. Abdulkadir Ahmed Hussien	General Manager, State Printing Agency

International Agencies

Mr. Osman Hashim	Resident Representative, UNDP
Mr. Brian Falconer	Resident Representative, World Bank
Mr. Brian Locke	Deputy Resident Representative, UNDP
Mr. Tom MacDermott	Resident Representative, UNICEF
Ms. Margaret Khalkadina	Project Officer, Education, UNICEF
Mr. K. Esenbel	Director of Operations, WFP
Ms. Maarit Hirvonen	Project Officer, WFP
Mr. Sabri	Habitat
Mr. Gilles Laheurte	UNCDF
Mr. Alford	UNHCR, Program Officer
Mr. G. Van de Castele	UNHCR, Program Officer

Other Agencies

Ms. Shirley Burchfield	. USAID/IEES
Mr. Chris Ramsden	Head of KELT Project, British Council, CDC

ANALYSIS OF TEACHER NEEDS

1. The projection of teacher needs for Somalia includes a higher degree of uncertainty than generally would be the case for such an exercise. The major factors that contribute to this situation are:

- (a) pupil enrollment data, especially intake into grade one, which have not behaved in a predictable manner. Enrollments have declined every year since 1980/81, with an average annual decrease of 8.02%. Although the overall trend in grade one intake has been negative (from 59,809 in 1980/81 to 33,306 in 1987/88), there have been two increases (in 1983/84 and 1987/88) over this period. For projection purposes, uncertainty arises over the trends in grade one intake due to doubt over whether the decline is (i) a secular trend reflecting diminishing demand for primary education or, rather, (ii) a result of the diminishing educational services provided by the Government, as demonstrated by its steadily declining budget share for education;
- (b) teacher attrition, which is high at about 20% per year for the civil service teachers, corresponding to an average seniority of about 4.3 years.¹ The magnitude of this factor is generally viewed as being a function of the extremely low teacher salary level, coupled with the absence of a career incentive structure. There is good reason, therefore, to believe that the attrition rate could be lowered given a mix of material (financial and in-kind) and career incentives. For this reason, teacher attrition will be treated as a policy variable;
- (c) budgetary allocations to the sector, which has received steadily decreasing shares of Government's recurrent budget since 1977 when education received 12.3%, as compared to 2.2% in 1987. It is presently not realistic to assume any particular trend in the near future (see the Note on "Primary Education Financing Issues"); and,
- (d) the rate of inflation, which has accelerated rapidly since early 1988 (107% for 1988). Salaries have lagged far behind inflation and it is variously estimated that a month's salary of 3,500 So.Shs. (salary level for higher level civil servants) covers from 25-35% of an average family's subsistence needs in Mogadishu.

2. Given these circumstances, the objective of this exercise will be to estimate projected teacher needs and the implications for teacher training.

3. There are two types of teachers: civil service teachers (called "permanent" teachers in Somalia) and the national service teachers.

¹ These estimates are extrapolated from two in-depth studies performed by MOEC:

- "School Drop-out Assessment in Lower Shabele Region", 1985;
 - "Report on the Survey of Educational Wastage, Northwest and Awdal Regions", 1986.
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Whereas the former have generally received some professional training at a PTTI, the latter are mostly female secondary school graduates who are accomplishing their national service duty of two years as teachers (instead of in the army as is the case for males). The number of civil service teachers has declined from 7,132 in 1980/81 to 5,289 in 1986/87, whereas the number of national service teachers has increased from 990 to 3,958 over the same period. This inverse relationship (decrease in civil service teachers vs. increase in national service teachers) is a strong indicator of the declining quality of primary education.

4. The pupil/teacher ratio is low by any standard -- it was 19:1 in 1985/86. However, this includes both types of teachers; for civil service teachers alone it was at 31:1. The ratio has declined steadily since 1980/81 when it was at 33:1 overall; 38:1 for civil service teachers alone. This low ratio is a function of several factors: (a) a rate of decline in enrollments that has probably been greater than the rate of increase in teacher attrition; (b) the sparsity of population distribution; and, (c) the likelihood that the number of teachers reported in the official statistics is greater than the number of teachers actually teaching. Given these factors, and the expected impact of the proposed project, the pupil/teacher ratio will be treated as a policy variable in the analysis.

5. The internal efficiency of the system is governed by two factors: rates of repetition and drop-outs. The only information we have, however, are the progression rates from one grade to the next. Since the administrative rules of the system limit pupils to only two grade repetitions over the eight year cycle, and to only one repetition per grade, the low progression rates are mainly a product of the drop-out rates. If the progression rates were to stabilize at the 1986/87 levels, only 22% of the pupils entering into grade one would reach grade eight.

6. The model used is an enrollment driven model based on the number of new entrants into the system and the rates of internal efficiency. Teacher needs are calculated as a function of the rate of teacher attrition and the pupil/teacher ratio. The following assumptions are made:

- (a) The progression rate for each grade is the average rate for that grade during the period 1981/82-1986/87. Since the last three years of that period are characterized by a decline in internal efficiency, using the six year average implies improvement.
- (b) Output of the PTTIs is dependent on the needs of the primary education system, but will not go below that of the annual output of the Mogadishu PTTI (the only one currently in operation), which is 196 for 1989 and 130 thereafter.
- (c) The pupil/teacher ratio increases with pupil enrollment until it reaches the observed ratio for 1980/81 (33.45:1 taking all teachers into account; 38:1 when only civil service teachers are counted). This means that, as long as the ratio remains below that of 1980/81, no teachers will be trained and recruited (after 1990/91) in excess of those foreseen in (b) above.
- (d) The number of national service teachers is held at present levels.

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Results

7. Three scenarios have been considered with the objective of estimating future teacher needs. Scenario A projects the current trends and assumes an "improvement" to 0% in the annual growth of intake into grade one; it also assumes that the national service teachers will continue to play an important role. The two other scenarios assume that the proposed project will result in real improvements in the system that will encourage: (i) a growth of enrollments in grade one; (ii) a decline in drop-outs; (iii) a decrease in teacher attrition as a result of incentive measures for teachers; and (iv) exclusive reliance on the civil service (permanent) teachers. These projections are defined as follows:

Scenario	Annual rate of growth of new entrants into grade one	Rate of teacher attrition	Progression rates	Pupil/teacher ratio
A (current trend)	0%	present rate of 20%	current levels	a function of all available teachers currently used in the system (i.e., civil service and national service teachers are treated equally)
B	10%	present rate of 20%	improved as of 1990/91	a function of the civil service teachers only
C	10%	improves gradually to 5% in 1995/96 as a result of increased teacher incentives	as in 'B' above	as in 'B' above

A detailed view of the results and the basis for the calculations of each scenario are displayed in the attached tables.

8. The results of greatest importance to educational policy and planning are summarized by scenario area of policy concern in the table below.

Scenario	Enrollments and quality	National service vs. civil service teachers	Teacher recruitment needs (civil service teachers)	Financial implications (training & salary)
A	Enrollments stagnate around the current level of about 145,000 over the next 6 years; quality would decline even further; drop-outs would remain high.	Civil service teachers would become increasingly outnumbered by the n.s.t.'s (twice as many nst's as c.s. teachers in 92/93 and three times as many in 94/95).	They would not exceed the output of Mogadishu PTTL.	Recurrent costs for salaries would decline and training costs remain constant.
B	Enrollments would increase by about 85% in 6 years; quality would improve and drop-out decrease.	Civil service teachers would predominate and could gradually replace n.s.t.'s.	They would increase dramatically to about 2,000 per year in 5 years.	Teacher wage bill increases by about 500% over next 5 years; but training costs increase at almost the same rate.
C	Same as 'B'.	Same as 'B'.	They would increase to about 1,250 per year in 5 years.	Teacher wage bill increases as in 'B'; but training costs increase at much slower rate.

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9. Conclusion. The current high rates of teacher attrition have created a situation analogous to that of a very expensive revolving door. The cost is high in terms of: (i) the training needs for new teachers who leave the profession after an average of about four years and have to be replaced again; and (ii) the poor quality of instruction due to the lack of experienced and motivated teachers. New investments in pre-service teacher training are not warranted under such conditions, especially since there are large numbers of trained and experienced teachers in the labor force who could be induced to return to teaching. This exercise has demonstrated that important "savings" could be gained by reducing the teacher attrition rate. These savings could be channeled into other areas, such as incentives for teachers to remain in their jobs. Therefore, it becomes crucial to develop a policy of teacher incentives that would include measures to make the teaching profession more attractive to both current and former teachers (some of whom are probably unemployed).

10. The policy implications of this analysis are:

- (a) it becomes essential to implement measures to reduce the teacher attrition rate;
- (b) given (i) the uncertainties in future enrollments, (ii) the uncertainties in future budgetary allocations to the sector, (iii) the presence on the payrolls of many teachers who have left the classrooms for more remunerative work, and (iv) the high investment and recurrent costs involved in creating new pre-service teacher training capacity, it will be necessary to institute measures to attract former experienced teachers back to the classrooms.
- (c) a policy needs to be developed concerning the role of the national service teachers. These teachers receive compensation equivalent to about 10% of all primary education expenditures and fill in the gaps left by the departed civil service teachers. Their presence would remain desirable if enrollments were to increase.

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SCENARIO A: PROJECTION OF CURRENT TRENDS

ANNEX 2
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P U P I L S													
Years	I	grade I	I	Progression rates						I	Total enrolment	I	
				increase	enrol.	I	I->II	II->III	III->IV				IV->V
1985/86	I	-2%	33523	I	76%	81%	81%	84%	82%	84%	89%	1196,496	*(1)
1986/87	I	-7%	31187	I	69%	74%	76%	86%	81%	82%	107%	1173,418	-12% *(1)
1987/88	I	7%	33306	I	75%	81%	84%	91%	84%	86%	105%	1158,622	-9% *(1)
1988/89	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1145,044	-9%
1989/90	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1141,600	-2%
1990/91	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1140,982	-0%
1991/92	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1140,585	-0%
1992/93	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1142,167	1%
1993/94	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1144,104	1%
1994/95	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1146,616	2%
1995/96	I	0%	33306	I	75%	81%	84%	91%	84%	86%	105%	1147,586	1%

T E A C H E R S														
Years	I	attrition %	I	pupil/ teacher ratio	I	total	I	numbers of post N.S.T. perm.	I	new posts	I	(a) recruit.	I	(b) attrition perm.
1986/87	I	20%	18.67	I	9289	I	4000	I	5289	I	-1091	I	406	1,058 *(2)
1987/88	I	20%	20.00	I	8417	I	4000	I	4417	I	-872	I	186	983
1988/89	I	20%	19.25	I	7720	I	4000	I	3720	I	-697	I	186	744
1989/90	I	20%	20.30	I	7106	I	4000	I	3106	I	-614	I	130	621
1990/91	I	20%	21.74	I	6615	I	4000	I	2615	I	-491	I	130	523
1991/92	I	20%	23.08	I	6222	I	4000	I	2222	I	-393	I	130	444
1992/93	I	20%	24.61	I	5908	I	4000	I	1908	I	-314	I	130	382
1993/94	I	20%	26.08	I	5656	I	4000	I	1656	I	-252	I	130	331
1994/95	I	20%	27.53	I	5455	I	4000	I	1455	I	-201	I	130	291
1995/96	I	20%	28.58	I	5294	I	4000	I	1294	I	-161	I	130	259

New posts perm = number of permanent teachers added to or suppressed from the permanent staff of the previous year. It is equal to column (a) for year t minus column (b) for year t-1.
N.S.T. = National service teacher.

Years	I	output TTI	I	enrol. TTI	I	unit cost TTI	I	total cost TTI	I	per teacher cost (1)	I	salary per teacher bill (2)	I	COSTS of TTI / SALARY BILL (1)/(2)
1988/89	I	196	I	316	I	80	I	25,296	I	25.2	I	93,744	I	0.27 *(3)
1989/90	I	186	I	260	I	100	I	26,020	I	25.2	I	78,271	I	0.33
1990/91	I	130	I	260	I	100	I	26,040	I	25.2	I	65,898	I	0.40
1991/92	I	130	I	260	I	100	I	26,040	I	25.2	I	55,994	I	0.47
1992/93	I	130	I	260	I	100	I	26,020	I	25.2	I	48,082	I	0.54
1993/94	I	130	I	260	I	100	I	26,020	I	25.2	I	41,731	I	0.62
1994/95	I	130	I	260	I	100	I	26,000	I	25.2	I	36,666	I	0.71
1995/96	I	130	I	I	I	I	I	I	I	25.2	I	32,609	I	I

Note: all costs in '000 shillings.

(1) Source :MOEC, october 1988. Progression rates for 1988/89 are part of the assumptions for the projections.
 (2) Sources: *Numbers of teachers 1985/86, MOEC, Statistics of education 1985/86
 *Teacher attrition in % for 1985/86, mission estimate based on a sample survey of average seniority conducted on three regions: Lower Sahbele, North-west and Awdal.
 *Mission estimate.
 (3) Sources: *The unit cost of training in TTI is a mission estimate.
 * Teacher salary costs are those of January 1989.

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PROJECTED ENROLLMENTS FOR CURRENT TRENDS SCENARIO

Years	I	I	II	III	IV	V	VI	VII	VIII	I	TOTAL
1985/86	I	33523	26579	25898	23436	23176	21099	19968	22817	I	196496
1986/87	I	31187	25426	21656	20863	19704	19112	17721	17749	I	173418
1987/88	I	33306	21501	18863	16447	18016	15897	15665	18927	I	158622
1988/89	I	33306	22962	15951	14326	14203	14535	13030	16731	I	145044
1989/90	I	33306	25010	18678	13391	13102	11907	12524	13681	I	141600
1990/91	I	33306	25010	20344	15680	12247	10984	10259	13151	I	140982
1991/92	I	33306	25010	20344	17079	14341	10267	9465	10772	I	140585
1992/93	I	33306	25010	20344	17079	15620	12023	8847	9938	I	142167
1993/94	I	33306	25010	20344	17079	15620	13095	10359	9289	I	144104
1994/95	I	33306	25010	20344	17079	15620	13095	11284	10877	I	146616
1995/96	I	33306	25010	20344	17079	15620	13095	11284	11848	I	147586

SCENARIO B: IMPROVEMENTS IN GRADE ONE INTAKE AND PROGRESSION RATES, BUT NOT IN TEACHER ATTRITION; ONLY PERMANENT TEACHERS ARE USED FOR CALCULATION OF PUPIL TEACHER RATIO

PUPILS														
Years	grade I		Progression rates							Total enrolment				
	Increase	enrol.	I	I->II	II->III	III->IV	IV->V	V->VI	VI->VII	VII->VIII	numbers increase			
1985/86	I	-2%	33,523	I	76%	81%	81%	84%	82%	84%	89%	1196,496	0%	*(1)
1986/87	I	-7%	31,187	I	69%	74%	76%	86%	81%	82%	107%	1173,418	-12%	*(1)
1987/88	I	7%	33,306	I	75%	81%	84%	91%	84%	86%	105%	1158,622	-9%	*(1)
1988/89	I	10%	36,637	I	75%	81%	84%	91%	84%	86%	105%	1148,374	-6%	*
1989/90	I	10%	40,300	I	75%	81%	84%	91%	84%	86%	105%	1151,095	2%	*
1990/91	I	10%	44,330	I	82%	86%	88%	93%	87%	90%	105%	1159,293	5%	*
1991/92	I	10%	48,763	I	82%	86%	88%	93%	87%	90%	105%	1170,301	7%	*
1992/93	I	10%	53,640	I	82%	86%	88%	93%	87%	90%	105%	1193,187	13%	*
1993/94	I	10%	59,004	I	82%	86%	88%	93%	87%	90%	105%	1219,151	13%	*
1994/95	I	10%	64,904	I	82%	86%	88%	93%	87%	90%	105%	1248,296	13%	*
1995/96	I	10%	71,394	I	82%	86%	88%	93%	87%	90%	105%	1278,758	12%	*

TEACHERS										
Years	Attrition %	pupil/ teacher perm.	number of posts			new posts	(a) recruit.	(b) attrition		
			total	N.S.T.	perm.					
1985/86	I	23%	30.80	10,338	3,958	6,380	-357	1,497	*(2)	
1986/87	I	20%	32.79	9,289	4,000	5,289	-1091	406	1,058	*(2)
1987/88	I	20%	37.49	8,417	4,000	4,417	-872	186	883	*
1988/89	I	20%	38.00	7,905	4,000	3,905	-512	371	781	*
1989/90	I	20%	38.00	7,976	4,000	3,976	71	852	795	*
1990/91	I	20%	38.00	8,192	4,000	4,192	216	1,011	838	*
1991/92	I	20%	38.00	8,482	4,000	4,482	290	1,128	896	*
1992/93	I	20%	38.00	9,084	4,000	5,084	602	1,498	1,017	*
1993/94	I	20%	38.00	9,767	4,000	5,767	683	1,700	1,153	*
1994/95	I	20%	38.00	10,534	4,000	6,534	767	1,920	1,307	*
1995/96	I	20%	38.00	11,336	4,000	7,336	802	2,109	1,467	*

New posts perm = number of permanent teachers added to or suppressed from the permanent staff of the previous year. It is equal to column (a) for year t minus column (b) for year t-1.

N.S.T. = National service teacher.

The ceiling for the pupil/permanent teacher ratio is the 1980/81 level.

Years	PRE SERVICE TRAINING-TTI				ANNUAL TEACHER SALARY				
	output TTI	enrol. TTI	unit cost TTI	total cost TTI	per teacher salary bill	per salary bill	TTI / SALARY BILL		
1987/88	I	I	I	I	I	I	I		
1988/89	I	196	1,197	80	95,776	18.0	170,290	1.36	*(3)
1989/90	I	186	2,140	80	171,168	25.2	1100,195	1.71	*
1990/91	I	1,011	2,627	80	210,144	35.3	1147,894	1.42	*
1991/92	I	1,128	3,198	80	255,856	49.4	1221,375	1.16	*
1992/93	I	1,498	3,620	80	289,616	69.1	1351,552	0.82	*
1993/94	I	1,700	4,029	80	322,336	70.0	1403,690	0.80	*
1994/95	I	1,920	4,218	80	337,408	70.0	1457,380	0.74	*
1995/96	I	2,109	I	I	I	70.0	1513,520	I	*

(1) Source: * MOEC, October 1988. Progression rates for 1988/89 are part of the assumptions for the projections.

(2) Sources: *Numbers of teachers 1985/86: MOEC, Educational Statistics for 1985/86.

*Teacher attrition in % for 1985/86 is a mission estimate based on a sample survey of average seniority conducted on three regions (Lower Sahbele, Northwest and Awdal).

*Mission estimates.

(3) Sources: *The unit cost of training in TTI is a mission estimate.

*Teacher salary is based on January 1989 rates, augmented by 40% annually for 4 years

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SCENARIO C: SAME AS 'B', EXCEPT TEACHER ATTRITION RATES ARE IMPROVED

TEACHERS										
Years	Attrition %	pupil/perm. teacher	number of posts total	N.S.T.	perm.	new posts	(a) recruit.	(b) attrition		
1985/86	23%	30.80	10,338	3,958	6,380	-357		1,497	(1)	
1986/87	20%	32.79	9,289	4,000	5,289	-1091	406	1,058	(1)	
1987/88	20%	37.49	8,417	4,000	4,417	-872	186	883		
1988/89	20%	38.00	7,905	4,000	3,905	-512	371	781		
1989/90	17%	38.00	7,976	4,000	3,976	71	852	676		
1990/91	15%	38.00	8,192	4,000	4,192	216	892	629		
1991/92	13%	38.00	8,482	4,000	4,482	290	919	583		
1992/93	11%	38.00	9,084	4,000	5,084	602	1,185	559		
1993/94	9%	38.00	9,767	4,000	5,767	683	1,242	519		
1994/95	7%	38.00	10,534	4,000	6,534	767	1,286	457		
1995/96	5%	38.00	11,336	4,000	7,336	802	1,259	367		

New posts perm = number of permanent teachers added to or suppressed from the permanent staff of the previous year. It is equal to column (a) for year t minus column (b) for year t-1.

N.S.T. = National service teacher.

The ceiling for the pupil/permanent teacher ratio is the 1980/81 level.

Years	PRE SERVICE TRAINING-TTI			ANNUAL			TTI / SALARY BILL
	output TTI	enrol. TTI	unit cost TTI	total cost (1)	per teacher (2)	salary (1)/(2)	
1987/88							
1988/89	196	1,078	80	86,234	18.0	70,290	1.23 (2)
1989/90	186	1,811	80	144,858	25.2	100,195	1.45
1990/91	892	2,103	80	168,277	35.3	147,894	1.14
1991/92	919	2,427	80	194,152	49.4	221,375	0.88
1992/93	1,185	2,528	80	202,262	69.1	351,552	0.58
1993/94	1,242	2,545	80	203,633	70.0	403,690	0.50
1994/95	1,286	2,519	80	201,501	70.0	457,380	0.44
1995/96	1,259				70.0	519,520	---

(1) Sources: *Numbers of teachers 1985/86: MOEC, Educational Statistics for 1985/86.
 *Teacher attrition in % for 1985/86 is a mission estimate based on a sample survey of average seniority conducted on three regions (Lower Sahbele, Northwest and Awdal).
 *Mission estimates.

(2) Sources: *The unit cost of training in TTI is a mission estimate.
 *Teacher salary is based on January 1999 rates, augmented by 40% annually for 3 years.

PROJECTED ENROLLMENTS BY GRADE FOR SCENARIOS 'B' AND 'C':

Years	I	II	III	IV	V	VI	VII	VIII	TOTAL
1985/86	33,523	26,579	25,898	23,436	23,176	21,099	19,968	22,817	196,496
1986/87	31,187	25,426	21,656	20,863	19,704	19,112	17,721	17,749	173,418
1987/88	33,306	21,501	18,863	16,447	18,016	15,897	15,665	18,927	158,622
1988/89	36,637	22,962	15,951	14,326	14,209	14,535	13,030	16,731	148,374
1989/90	40,300	27,511	18,678	13,391	13,102	11,907	12,524	13,681	151,095
1990/91	44,330	30,262	22,378	15,680	12,247	10,984	10,259	13,151	159,293
1991/92	48,763	33,289	24,616	18,787	14,341	10,267	9,465	10,772	170,301
1992/93	53,640	39,986	28,628	21,662	17,472	12,620	9,241	9,938	193,187
1993/94	59,004	43,985	34,388	25,193	20,146	15,375	11,358	9,703	219,151
1994/95	64,904	48,383	37,827	30,261	23,429	17,728	13,838	11,926	248,296
1995/96	71,394	53,221	41,609	33,287	28,143	20,618	15,956	14,530	278,758

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PRIMARY EDUCATION REHABILITATION PROJECT
ANALYSIS OF TEXT BOOK FINANCING NEEDS

1. OBJECTIVE

To clarify certain policies with MOE related to primary school text books* in Somalia in terms of its preparation, production and distribution, recognizing that the Project's objective is to promote the availability and use of textbooks in the schools:

2. MANUSCRIPT PREPARATION

a) Manuscripts:

Not all manuscripts for student texts and teachers' guides are available. 16 student texts for grade 7 and 8 and 17 teachers' guides for grade 7 and 8 are not yet completed.

What is the realistic time period to have all the manuscripts ready? In order to carry out an appraisal of printing needs the mission would like to have a firm indication from MOE on the completion dates of these manuscripts.

b) Training:

CDC has 13 sections including 2 technical units. Majority of the staff members do not have the necessary skills to prepare manuscripts acceptable to professional standards.

The mission has made assessment of training needs of CDC staff with the assistance of the Director, for an approximate cost of \$ 230,000. The mission is also of the opinion that most training should be provided in-house as more staff in the local setting can be trained. Also costs will be less.

c) Desktop publishing

CDC has a desk top environment to prepare camera ready copies of manuscripts. There is a need to accomodate new features, especially to include illustrations.

The mission will determine the investment cost needed for such an upgrading after the team returns to headquarters.

* Exercise books and readers are not in the scope of Project.

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3. Printing

SPA

The State Printing Agency is the only printing concern in the country capable of handling the volume required for primary school text books. The Agency has a proven turn around time of 22 working days under normal conditions. SPA printing charges for printing a text book is approximately 30 U.S. Cents. Right now, the Agency has a very low capacity utilization of 15 percent. SPA also benefits from GTZ technical assistance whose contract has just been renewed for another two year period. The mission realizes that the investment in printing machinery in SPA is adequate to handle textbook printing and the staff in SPA are qualified to perform the jobs assigned to them. The mission also recommends that SPA and CDC should develop a plan of action to increase their co-ordination and to work more effectively.

Below is an indication of alternatives if SPA were to prove inadequate.

Alternative choice No. 1

As a first alternative, the mission recommends having the books printed abroad on an ICB basis. The preliminary cost data gathered from various printing presses abroad and the information available on other World Bank textbook projects indicate that printing and delivery charges to port will be approximately \$ 2.00 a copy. This translates to roughly 1.28 million dollars for student texts based on a pupil-book ratio of 2:1 and approximately 110000 dollars for teachers' guides based on a teacher-book ratio of 1:1.

Alternative choice No. 2

As a second alternative MOE would establish its own plant in Mogadishu. Details for this choice have to be worked out in terms of hardware and software and what else needs to be procured. Roughly, this alternative involves:

- A physical structure (building) with special features to accomodate printing hardware of at least 4000 Square meters costing approximately 1.5 million dollars.
- Procurement of necessary hardware including cameras, plate making machines, offset printers, collating and folding equipment, stitching and binding facilities.

* OED Report on the Third Education Project has discussed the activities of SPA.

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Also needed are the necessary raw materials such as paper, chemicals, film, plates, ink, glue and so forth in sufficient quantity. It is estimated that an up-front cost of \$ 1.5 million would be required to cover all these areas.

- To operate the printing plant and production, qualified staff are needed which includes managerial, technical, as well as support level staff.

The following are the estimates:

<u>Staff</u>	<u>Number</u>	<u>Monthly salary In So. Shs.</u>	<u>Total yearly expenditure</u>
Manager	1	25000 each	300000
Engineer	3	15000 each	720000
Section Chiefs	4	15000 each	720000
Operators	15	7000 each	1260000
Technician	10	7000 each	840000
Clerical	10	5000 each	600000
Support/Janitorial	12	5000 each	720000
			5160000

This roughly translates to 200000 U.S. dollars per year as operating ^{salary} costs. This will become a part of recurrent costs, along with other maintenance costs, for MOE once the project is completed.

The three cost scenarios, SPA, Foreign Printing, and CDC, have been tabulated in table 1 in summary form.

Based on the analysis, the mission strongly recommends that MOE should work out a plan of action with SPA to have the textbooks and teachers' guides printed in the country utilizing SPA resources. The mission also recommends financing of raw materials. These materials would be managed by PIU.

4. STORAGE AND DISTRIBUTION

The storage and distribution aspects are the weakest links of the textbook program.

- In terms of storage, the Central Store serves as the main warehouse. The storage areas need work to bring it to good use.

The mission recommends redesigning the interior of the Central Store and perform the cosmetics needed, pending closer examination of existing MOE facilities, including the one adjacent to SPA. It is also recommended that modern storing, wrapping, and packing devices and equipments are to be utilized for effective storage. The total cost to implement this recommendation would be in the range of .50 million dollars.

- In terms of distribution, the time allocated for the present vehicles for transportation of books is not sufficient. Similarly the book keeping procedures followed are not effective.

The mission recommends a depth study through technical assistance on the transportation analysis of the distribution system to arrive at appropriate schedules and costs. The mission also recommends financing of new vehicles if appropriate, or transport books utilizing commercial transportation and training of staff for modern book keeping practices on stock and inventory control. Training will be in the form of technical assistance. It is estimated that the cost of the distribution system study, new vehicles or commercial transportation, and training would be approximately 1.5 million dollars.

It is also recommended that textbook distribution to the district level will be administered by PMU, firstly, given the high cost of new vehicles and secondly, that textbook distribution will mobilize these vehicles only for a short period in a year. The mission recommends that the community participates in the textbook component of the project by making appropriate delivery of textbooks from DEO's to individual schools.

This will be monitored to ensure that the book will arrive in school on schedule.

5. RECURRENT COSTS

A study will be performed during the project to explore cost recovery mechanism for financing recurrent expenditures of manuscript preparation, printing and distribution, after the completion of the Project. In order to assist in developing such a plan of action, the mission recommends financing the plan in the project period to an estimated cost of 150000 ollars.

Table 1

SUMMARY COST TABLE FOR PRINTING
(Per copy in U.S. Cents)

<u>COST ITEMS</u>	<u>SPA</u>	<u>PRINTING ABROAD</u>	<u>M.O.E. PRINTING</u>
1. PRINTING THROUGH BINDING OF TEXTBOOKS AND TEACHERS' GUIDES	30/A	200/B	160/C
2. COST OF PAPER, FILM AND PLATES	75		75
Sub-Total	105	200	230
Cost adjustment factor for durability	x 1.5	x 1.0	x 1.5
Total cost	158/D	200	345

/A Product has a life of two years.

/B Delivery Mogadishu Port; includes cost of paper and other raw materials. Product has life of at least three years.

/C Establishing a separate printing press for CDC imply the following costs in dollars:
printing press of 1.5 million annual cost of 150,000 amortized over 10 years; building with facilities of 1.5 million with an annual cost of 75,000 amortized 20 years; furnishing at an annual expenditure of 10,000; utilities at an annual expenditure of 20,000; building maintenance at an annual expenditure of 5,000; wages and salaries at an annual cost of 200,000; and staff training at an annual cost of 25,000. This would amount to a total annual expenditure of 485,000 and translates to roughly \$ 1.60 per textbook copy. Product has a life life of two years.

/D Assumed that SPA will deliver printed copies on schedule. Otherwise cost figures will change upwards.

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PROCESSES OF MONITORING AND EVALUATION IN MOEC

Background

1. The objectives of M&E are to: (i) act as a guide for the effective and efficient management of the project; (ii) improve the feasibility of the project's follow-on activities; and, (iii) keep track of the implementation of the project's policy aspects. This becomes especially important for a project, which has several components of an experimental or pilot nature that, it is expected, will become the basis of future policy and be generalized in subsequent phases of a longer-term donor commitment. Effective M&E should be corrective and informative, meaning that it would enable decision makers and implementors to make needed corrections during implementation of the project and draw the lessons necessary for the design of subsequent activities and phases.

2. Monitoring and evaluation serve two different functions and represent different types of activities. Each one would use different methodological approaches. Monitoring includes the continual gathering of information on the actual implementation of the project. For example, this would cover the following activities: actual implementation of teacher and headmaster training courses (numbers trained during a course, number of days, real expenses and disbursements); actual number of classrooms built, the timing, and the real costs; actual number of people trained abroad, in what fields, for how long, and real costs; and, the number of textbooks received by the schools (in the pupils' hands), the size of the books, when they were received and real costs. Monitoring is used primarily as a tool for project management. Evaluation refers to methodologically more complex work concerning the impact of various aspects of the project on the educational system itself and/or the outputs of the system. For example, evaluation work would include: in-depth analysis of the impact of project inputs on the actual learning of pupils, their attendance and changes in enrollment figures; the effect of in-service teacher training and other teacher incentives on the attrition rate of teachers; and, the impact of the school building program on the CEAs and their attitudes and behavior towards the school. Evaluation is useful primarily for the development and formulation of policies and future investment strategies.

3. M&E should perform the following functions:

- (a) gather relevant and reliable information on the progress of project implementation;
- (b) provide practical and relevant feedback on the progress of implementation to the various levels of implementors (from the national decision-makers to those concerned at the local level) in a timely manner, and propose modifications in project implementation accordingly; this means that the information is directly applicable to the various users of project monitoring and evaluation, including: implementors at the local level; MOEC planners, implementors and decision-makers; the PMU; the World Bank; and,
- (c) be useful for the financial, logistic and programmatic planning needs of the project.

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4. Information is the lifeblood of any M&E system -- both as it flows into and out of the system. In order to ensure that it is both reliable and valid and that it flows to the those who need to use it for their work, special care must be given to (i) the quality of the information that is collected, and (ii) the organizational feedback mechanisms that are instituted. In other words, it is necessary to ensure that the information is used for both project management and policy formulation, as well as improving the chances of the generalization of the project's inputs in future phases. A degree of independence is therefore necessary for effective M&E.

Organization of M&E within MOEC

5. There will be several levels of M&E activities in MOEC within the context of the proposed project. Each level will have different functions and responsibilities with regards to (i) the collection and transmission of information, (ii) project management, and (iii) the monitoring of policy implementation.

6. Given (i) the pilot nature of several project components, (ii) the uncertain conditions in which the project will be implemented (declining enrollments, uncertain budgetary and community commitments and high inflation), and (iii) the prospects for subsequent phases, the World Bank will need extensive monitoring information for efficient project management and evaluations of the effectiveness of the project's inputs. Joint MOEC/IDA reviews of project management and implementation will be organized at the end of each Project Year (PY). They will cover all aspects of the project's objectives, activities and management, including provision of sufficient recurrent financial resources through the Government's ordinary budget.

7. The following table shows the different units within MOEC and their respective M&E responsibilities. This table indicates the different levels at which the M&E processes will occur

<u>MOEC unit:</u>	<u>Reports to:</u>	<u>Functions:</u>	<u>Activities:</u>
M&E Unit	Minister	(i) Coordinate (but not perform) M&E, with emphasis on policy implementation; (ii) Participate with PMU in the organization of the annual Joint Reviews.	Collect information produced by the different MOEC project and implementation units; synthesis of all M&E information relative to evaluation; define new and/or modified M&E needs; organize the Joint Reviews. Special attention will be given to policy aspects; organize high-level intersectoral seminars on findings from M&E and implications for human resource development policy and investment strategies.

Project Management Unit (ex PIU)	Director-General	(i) Primary responsibility for monitoring and communicating with World Bank on matters of on-going implementation. (ii) Collect all information needed for effective project management (see para 8); (iii) Prepare periodic project implementation status reports for IDA. (iv) Prepare annual detailed work programmes for the Joint Reviews (para 8). (v) Organize external support for M&E, including project supervision.	Collect detailed information (as per para 8) pertaining to project financed activities; maintain on-going contact with MOEC implementation units (e.g., Depts. of Planning, Teacher Training, etc) in order to keep informed of implementation status; conduct periodic inspections of project implementation activities in the field.
Research & Documentation Section	Director of Planning	(i) Coordinate evaluation studies performed within MOEC (e.g., reduced teacher attrition? reversal of declining enrollment rate? etc); (ii) Provide technical advice on evaluation design and methodology.	Maintain a critical mass of technical expertise in areas of research design and methodology; work with members of other divisions in the conduct of evaluative studies; work with the Research Council.
MOEC implementation services (Teacher Training Dept.; Planning Dept; Central Inspectorate; etc.)	Director-General	Provide monitoring information needed by the PMU.	Maintain adequate records needed for the routine collection of monitoring information; apply modifications to on-going implementation activities on the basis of feedback received.

8. The Project Management Unit (PMU) will play the pivotal role in project management. Its major monitoring tool will be detailed annual work programs that will contain monitorable indicators of the activities which are the specific objects of project financing. This means that it will be possible to (i) ascertain the extent to which assigned implementation targets have been realized in a given PY, and (ii) identify problem areas in order to devise appropriate modifications and improve the mechanics of implementation. The following grid provides an example of a detailed annual work program that would be a tool for planning, management and monitoring for a given PY.

Activity	Unit	Number	Place	Timing	Costing basis	Unit cost
In-service teacher training	teachers	give numbers by place	Baidoa Mogadishu	indicate number of days and/or period	-per diem for trainees at ? per day -travel costs for trainees -teaching materials -fees for trainers at ? per day/week/month -per diem for trainers at ? per day -travel for trainers	xxx Shs. per trainee
School rehabilitation	classrooms	numbers by district	districts	over what period?	-all cost elements	xxx Shs. per classroom

This detailed annual program of project activities would be the basis for annual appraisals of the project's financial needs. It would be compiled by the PMU in close consultation with MOEC's implementation departments (Teacher Training, Planning, CDC, etc); then it would be submitted to the annual Joint Review. For PY2,3 and 4, the Joint Review would study it in

conjunction with the results of the monitoring of the previous year's implementation experience, including provision of recurrent cost financing from the Government's ordinary budget. This would allow for a linkage between continued project financing and the corrective processes for improved and more efficient implementation.

9. In order to ensure the effectiveness of this process, the IDA credit would provide for external expert services to work on: (i) the preparation of the detailed annual work programs which would be based on the monitoring results of the previous PY; (ii) the development of systematic monitoring tools (that could include elements of computerization); (iii) proposals for corrective measures designed to improve the implementation processes and procedures; (iv) the reports to the annual Joint Reviews, including analyses of the implementation of the project's policy aspects; and, (v) provide in-service training for project related personnel on the methods and effective use of monitoring activities. This would also have the advantage of bringing a measure of professional independence to the monitoring process.

10. The M&E Unit would work closely with the PMU and the external experts. It would be an advisory unit to the Minister, responsible for centralizing the all relevant information and recommendations for policy and/or organizational modifications necessary for the success of the investment strategies on which external (e.g., IDA) financing is based. This would be a small unit with mainly coordinating, conceptual and advisory responsibilities. The head of the unit would have had advanced professional training in areas related to educational policy analysis.

11. The Research and Documentation section in MOEC's Planning Department should be staffed by professional researchers familiar with the techniques and methodology of evaluation. Once this is accomplished, this section could coordinate and undertake selective evaluative studies on the impact of project inputs on educational outcomes (drop-outs, learning, teacher stability). Some of the evaluative studies could be financed by the applied policy research fund that will be administered by the Research Council. These studies would be conducted with the concerned MOEC departments and the results would be reported to the M&E unit and discussed during the annual Joint Reviews. Evaluative studies could include: the effect of teacher training on teacher performance and motivation; the dissemination and actual use of textbooks in the classroom; the actual contributions (in cash and/or kind) of communities to school rehabilitation.

12. In order to ensure that all these M&E efforts will be effectively fed back into actions related to project implementation, it will be necessary to include MOEC's implementation departments in M&E activities. If M&E is to have any practical effect, those concerned with implementation must recognize the validity of the results and ensuing recommendations that come out of M&E. Every effort must be made to ensure the effectiveness of this feedback process and its translation into effective modifications of implementation practices.

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