

IMPROVING THE EFFICIENCY
OF EDUCATIONAL SYSTEMS

Semi-Annual Progress Report

June 11, 1986 - December 10, 1986

IEES

Improving the
Efficiency of
Educational
Systems

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

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

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

There are seven countries working with the IEES initiative to improve educational efficiency: Botswana, Haiti, Indonesia, Liberia, Nepal, Somalia, and Yemen Arab Republic.

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Agency for International Development
Contract No. DPE-5823-C-00-4013-00
Project No. 936-5823

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TABLE OF CONTENTS

	Page
INTRODUCTION	iii
1.0 FIELD ACTIVITIES	
1.1 Activities in Botswana	
1.1.1 Background	1
1.1.2 Accomplishments During Report Period	2
1.1.3 Projected Activities	15
1.1.4 Constraints Encountered and Anticipated	17
1.1.5 Conclusions and Implications for the Future	18
1.2 Activities in Haiti	
1.2.1 Background	20
1.2.2 Accomplishments During Report Period	22
1.2.3 Projected Activities	36
1.2.4 Anticipated Constraints	43
1.2.5 Conclusions and Implications for the Future	45
1.3 Activities in Indonesia	
1.3.1 Background	47
1.3.2 Accomplishments During Report Period	50
1.3.3 Projected Activities	59
1.3.4 Constraints Encountered and Anticipated	66
1.3.5 Conclusions and Implications for the Future	66
1.4 Activities in Liberia	
1.4.1 Background	69
1.4.2 Accomplishments During Report Period	70
1.4.3 Projected Activities	72
1.4.4 Constraints Encountered and Anticipated	73
1.4.5 Conclusions and Implications for the Future	73
1.5 Activities in Nepal	
1.5.1 Background	75
1.5.2 Accomplishments During Report Period	80
1.5.3 Projected Activities	88
1.5.4 Constraints Encountered and Anticipated	90
1.5.5 Conclusions and Implications for the Future	91
1.6 Activities in Somalia	
1.6.1 Background	93
1.6.2 Accomplishments During Report Period	97
1.6.3 Projected Activities	101
1.6.4 Constraints Encountered and Anticipated	104
1.6.5 Conclusions and Implications for the Future	105

1.7	Activities in Yemen Arab Republic	
1.7.1	Background	107
1.7.2	Accomplishments During Report Period	109
1.7.3	Projected Activities	120
1.7.4	Constraints Encountered and Anticipated	123
1.7.5	Conclusions and Implications for the Future	124
1.8	Activities in Zimbabwe	
1.8.1	Background	125
1.8.2	Accomplishments During Report Period	128
1.8.3	Projected Activities	128
1.8.4	Anticipated Constraints	128
1.8.5	Conclusions and Implications for the Future	130
1.9	Achievements, Problems Encountered, and Lessons Learned	130
2.0	CENTRAL CONSORTIUM OPERATIONS	
2.1	Planning, Management, and Coordination	
2.1.1	International Steering Committee	133
2.1.2	IEES Executive Management Committee	133
2.1.3	Coordination With Other AID-funded Projects	135
2.1.4	Technical Support Services	136
2.1.5	Ongoing Management and Coordination	137
2.1.6	Anticipated Constraints	142
2.1.7	Projected Activities	143
2.2	Knowledge Building and Networking Activities	
2.2.1	Background	143
2.2.2	IEES Educational Efficiency Clearinghouse	144
2.2.3	Networking	146
2.2.4	Publications	147
2.3	IEES Policy Research Initiative	
2.3.1	Background	150
2.3.2	Achievements During Report Period	152
2.4	Training Activities	
2.4.1	Togo Workshop on Databased Decisionmaking	168
2.4.2	Training Manual for Sector Assessment Methodology	172
2.5	Project Staff	174
2.6	Achievements, Problems Encountered, and Lessons Learned	178

APPENDICES

- I. Summary of Project Travel June-December 1986
- II. Summary of Field Activities - IEES Status Updates
- III. Visitor List
- IV. IEES Project Organizational Chart
- V. IEES Second International Conference
Agenda and Participant List
- VI. Policy Research Initiative Materials
Education Management Information Systems
- VII. Policy Research Initiative Materials
Teacher Incentive Systems
- VIII. Policy Research Initiative Materials
Concepts in Decentralization in Education
- IX. Financial Summary Report June 1984-December 1986
- X. Outline of Training Manual for Sector Assessment Methodology

INTRODUCTION

This report summarizes activities during the first half of the Third Project Year (June 11, 1986 to December 10, 1986) of Improving the Efficiency of Educational Systems (IEES), which is funded under Contract Number DPE-5823-C-0-4013-00 from the United States Agency for International Development (AID). The report contains an overview of accomplishments during this period, identifies constraints to optimal project implementation and steps taken to overcome these constraints, as well as activities now projected for the balance of the Third Project Year. IEES Project plans for the Third Project Year are contained in the document, Project Plan: Year Three, June 11, 1986 - June 10, 1987 (July 1986).

The IEES Project began in June 1984, and both field and central consortium activities have accelerated since that time. Project activities have been summarized in previous Semi-Annual Progress Reports as required by contract (activities for the first two semi-annual reporting periods have been summarized in the Annual Report: June 11, 1984 - June 10, 1985).

The IEES Project is based upon a comprehensive, systemic approach to sector development, which is designed to improve educational capabilities for ongoing databased assessment, planning and management. The conceptual basis of the project rests on four assumptions:

1. Developing nations will face an increasing scarcity of resources relative to emerging needs and demands in the education and human resources sector.
2. Policy emphasis on improved efficiency in the use of educational resources as a result of this increasing scarcity will become a major factor in educational planning.
3. A commitment to databased analysis and decisionmaking in the Education and Human Resources sector is essential for improving efficiency.
4. The development of long-term, flexible, coordinated planning, based on valid and realistic data that are competently analyzed, will have the greatest effect on promoting the social and economic development of countries collaborating with the IEES Project.

IEES objectives for improving educational efficiency and strengthening institutional capacity in collaborating countries will be achieved through delivery of technical assistance and other resources over an extended period of ten years.

The five major program components of the project are:

- educational sector assessment and EHR planning,
- research and development support,
- field projects,
- knowledge building and networking activities, and
- training.

Seven countries are currently collaborating in these activities with the IEES Project to improve educational efficiency: Botswana, Haiti, Indonesia, Liberia, Nepal, Somalia, and Yemen Arab Republic. Project activities in these countries during this reporting period are described in Part One of this document. A section is included for each country and addresses accomplishments, problems, and lessons learned during the past six months. Part Two contains reports of the project planning and management structures which are necessary to support and coordinate the many and complex field activities. Part Three of the report contains a summary of project travel, a summary of project activities presented in graphic form for each category of activity, a list of visitors to central consortium offices, and other documents from this reporting period which support the reports contained in Parts One and Two.

1.1 ACTIVITIES IN BOTSWANA

1.1.1 Background

The Botswana Education and Human Resources Sector Assessment (June 1984) was conducted in late 1983, prior to the signing of the IEES contract. The three main objectives of the Botswana Country Implementation Plan for IEES activities, prepared and approved in June 1985, are:

1. to make allocation and use of available fiscal resources more effective and efficient;
2. to increase individual and institutional capacity to plan, design, monitor, and evaluate programs; and
3. to improve the internal efficiency and relevance of programs in the education and human resources sector.

The Project Identification Document (PID) for the Junior Secondary Education Improvement Project (JSEIP) was developed to address the highest educational development priority as identified in the Sector Assessment. Following PID approval by AID/W, a JSEIP Project Paper was developed in September-October 1984, and approved by AID/W in February 1985. The USAID Mission and Government of Botswana (GOB) elected to assign the technical assistance portion of JSEIP to the IEES Consortium.

The fundamental long-term objective of JSEIP is to improve the quality and efficiency of the rapidly-expanding junior secondary education system in Botswana. There are five general activities identified in the Project Agreement relating to this broad objective:

To increase the quality and efficiency of the expanded junior secondary education system by:

1. making junior secondary education more responsive to national development needs,
2. improving instructional delivery, and
3. improving teacher training.

To institutionalize the capacity of MOE to develop, manage and maintain the junior secondary education system by:

1. developing the organizational structure with a trained staff for the system, and
2. developing and coordinating needs analysis, teacher training dissemination and managerial components of the system.

During the first year, much attention has necessarily been spent in identifying, placing, and orienting long-term staff. With the arrival of Conrad Wes Snyder, Curriculum Evaluation Specialist, in September 1986 and Joe McDonald, Inservice Management and Administration Specialist, in October 1986 there are now ten JSEIP resident technical advisors in Botswana. Staff orientation, joint planning and coordination, and the development of individual and departmental work plans have been achieved through regular staff meetings and a number of staff retreats.

The administrative and materials inputs necessary for the staff to function effectively (project vehicles, office space, equipment, a field account, resource materials and support staff) are now in place.

Although activities relating to the design of the buildings and specification of equipment required for the implementation of the JSEIP were not explicitly included in the contract between USAID and FSU, they have, in fact, been a necessary and important aspect of the Project. The design of the interior space for the new Curriculum Development Building, the design for the Education Centers, and the specification of equipment needed for planning and instructional materials development have been time-consuming but vital activities.

1.1.2 Accomplishments During Report Period

This section first discusses IEES activities during this report period which were not funded under JSEIP.

1.1.2.1 IEES Accomplishments During Report Period

The IEES activities in this reporting period have focused on development of Educational Management Information Systems (EMIS) for the United Teaching Service (UTS) and the Department of Nonformal Education (DNFE).

IEES consultant Eric Eno completed a review of software operating systems and is near completion in development of a prototype EMIS system for the UTS. This system will provide assistance in planning and managing the posting of teachers and in maintaining teacher records. Additionally, one of the principal benefits of this system will be improved ability of the UTS to respond to requests for basic information about teachers employed by the Ministry.

Eno has established a prototype system for the DNFE, which will be fully completed by the end of 1986. This system, developed within the Correspondence Branch of the DNFE, will be used to register students for initial courses, prepare mailings of course materials, monitor student progress, monitor tutor performance and effectiveness, and measure the activity and outcomes of the Correspondence Branch.

With the recent changes of leadership at the UTS, the DNFE and the Bursars Department of the Ministry, it is critical that all new department heads be aware of the EMIS Development and all new appointees have been thoroughly briefed on the IEES activities and development schedule.

Close coordination with Hope Phillips of UTS have resulted in a modification in the schedule for the training of personnel and installation of an EMIS for that agency. The revised schedule is as follows:

December 1986: Purchase of Equipment for Nonformal Education Department.

January 1987: Consultant visit to Botswana for installation of software and system at DNFE for tracking 9,000 correspondence course students. Review of proposed UTS system with Director and staff.

February 1987: Training in USA for three persons in the UTS database system and development of final version (before returning to Botswana for installation of UTS system developed with trainees).

March 1987: Consultant visit to Botswana for installation of EMIS for UTS, and training of UTS staff for data entry.

During the report period, the University of Botswana was requested by IEES to nominate a person to participate for one year in the IEES Policy Research Initiative (described in Section 2.3). Botswana has chosen to participate in the Decentralization and Localization area of the research program. The University has selected Patrick Molutsi, a Lecturer in Sociology. Molutsi received his Ph.D. from Oxford University, and has considerable research and field work experience in rural sociology and the sociology of education. He will attend the initial meeting of the research area group in Washington, DC in December 1986 and will represent that Botswana research team at the IEES Second International Conference in February 1987.

IEES PI Robert Morgan was in Botswana from July 20 - August 9, 1986, to conduct an annual review of JSEIP and to update the IEES Country Implementation Plan with Botswana officials and the USAID Mission. This plan for implementing IEES activities in Botswana was originally developed in April and May 1985. It identifies the scope, priorities, and objectives of IEES assistance over the five-year life of the project. The plan is designed to be annually updated by a team of Botswana, USAID Mission, and IEES personnel.

1.1.2.2 JSEIP Accomplishments During Report Period

The activities of the JSEIP staff are directed toward the long-term objective of improving the quality and efficiency of the junior secondary education system in Botswana. This summary of accomplishments for the past six-month reporting period begins with a review of organization and coordination events, followed by the JSEIP contributions to MOE management information systems. A description of recent JSEIP

activities in instructional systems development and teacher training will be described, concluding with a description of the innovative JSEIP approach to long-term training.

Organizational Development and Coordination

A significant achievement of the JSEIP Project has been the design and functional operation of institutional mechanisms for coordinating the development of instructional systems and teacher training for the Community Junior Secondary School (CJSS) program. These mechanisms will ultimately be extended to coordinate the upper three years of the nine-year basic education program.

At the outset of JSEIP planning, it was noted that organizational structures did not exist for effectively coordinating the development of the instructional system for the CJSS program. The development of organizational structures for coordinating curriculum development, preservice and inservice teacher training were identified as a precondition for Project effectiveness, hence the priority for this development.

Two JSEIP instructional materials development staff have been assigned to the Department of Curriculum Development and Evaluation (CD/E). Junior secondary education curriculum, however, has been the responsibility of Education Officers within the Department of Secondary Education, working through independent subject panels. CD/E staff have been involved in the work of the panels in some cases, but had not been responsible for the junior secondary program. In any case, CD/E had been understaffed even in relation to its principal activity of working on the primary curriculum and examinations. The Government of Botswana indicated in the current Six-Year Plan (1985/86-1990/91) its intention to shift responsibility for the Nine-Year Basic Education curriculum from the Department of Secondary Education to CD/E, and the JSEIP Agreement reflects this intent. But at the outset of the JSEIP

implementation this remained an intention, and not an accomplished organizational reality.

The JSEIP Project Planning Committee was established early in 1986. It met three times between April and September 1986 and has provided the framework and policy direction for all activities of the Project. It is chaired by the Deputy Permanent Secretary, and its members include the Chiefs of the Secondary, Curriculum, Primary and Teacher Training Departments, the Head of the Planning Unit, the Principal of Molepolole College of Education, the Chiefs-of-Party for the JSEIP and Primary Education Improvement Projects (PEIP), and the USAID Project Manager. It has established two very important organizational bodies: the Curriculum Coordinating Steering Committee and the Education Center Task Force.

The Curriculum Coordination Steering Committee (CCSC) was formally established in May 1986, when the Project Planning Committee approved its terms of reference and membership. The CCSC is chaired by the head of the Curriculum Development Unit, and has representatives from the Secondary, Primary, Teacher Training, Research and Testing and Curriculum Units. The focus of the CCSC is the coordination of curriculum development, especially for the junior secondary level (including the upper grades of primary, which will be incorporated within the Community Junior Secondary Schools in the early 1990s). The CCSC has subsequently established a number of subcommittees and task forces including a Needs Assessment Committee, a Curriculum Structure Task Force, an Intensive English Committee and a National Curriculum Conference Committee. These bodies now make it possible to cross departmental lines in planning and organizing the activities necessary to achieve JSEIP objectives.

In August 1986 the Molepolole College Advisory Board was established, with terms of reference to advise on program objectives, enrollments, curriculum structures, professional and support staff, facilities and budgets. The Board is

chaired by the Deputy Permanent Secretary. The JSEIP Coordinator serves as a board member. The Board is now able to provide much needed coordination between curriculum development work, inservice teacher training, and the College program.

Management Information Systems

A number of project activities have contributed to strengthening MOE capacity for planning and monitoring the expansion of the CJSS system. These activities are described below.

School Mapping. A database of all primary schools and their distances from existing secondary schools now provides the preliminary basis for establishing school zones throughout the country. A second and related database of all villages of over 500 people (1981 Census) shows the projected population per village of CJSS entrants in relation to planned facilities, and thereby provides information on policies concerned with school size and location for the second half of the Six-Year Plan. The CJSS Working Group has the responsibility for planning the physical infrastructure for the expansion of the Community Junior Secondary Schools during the present National Plan Period.

In October 1986, the JSEIP Chief-of-Party prepared a paper based on the earlier school mapping analysis, and concluded that Botswana could not provide junior secondary schools within walking distance of more than approximately 40% of the population, given the present design and structure of the CJSS. The JSEIP paper indicated two alternatives: increasing the provision for boarding or reducing the school size (so that smaller villages would support a CJSS). The working group accepted the JSEIP paper, and suggested a further analysis of the implications of developing a small, one stream (80 student) CJSS.

A second JSEIP paper was prepared which analyzed the small CJSS concept, and was presented at the November 1986 meeting. The Ministry of Education's architect is currently preparing the basic designs for the small CJSS structures.

CJSS Database. The Central Statistics Office (of the Ministry of Finance and Planning) annually sends data collection forms to all schools for completing statistical information. These are returned by May/June and data is entered into the government mainframe computer. The MOE has previously not had access to this information until it has been tabulated and produced in the following year as the compilation of the Annual Education Statistics. In August 1986, JSEIP and MOE Staff worked together to download the secondary school statistical data files from the mainframe to microcomputer diskettes that can be read by the microcomputer within the Education Planning Unit. Files have now been established for the MOE using SPSS+, dBASE III+ and LOTUS software programs. The result of this effort is that MOE now has access to timely data for planning and analysis.

CJSS Staffing Analysis. The data from the CJSS files have been used to conduct an analysis of current staffing patterns, and to develop a model and projections for CJSS staffing. This analysis has recently been used by the Molepolole College Advisory Board to examine the requirements for teacher training in the next three years.

Public Information. JSEIP staff development specialist, Dwight Allen, has designed a brochure to enhance the public's understanding of the CJSS. Each school would have its own brochure, which would be updated annually. The brochures would be produced in both English and Setswana. A trial brochure, for Maun CJSS has been designed using the Macintosh and Laser Printer, and 500 copies have been provided to the Headmaster. Preliminary reaction to this has been very favorable.

Instructional Systems Development

A major constraint on the achievement of the JSEIP objective of producing instructional materials has been that an adequate staff at CDU has not been established for the core subject areas. A significant breakthrough occurred in

August 1986, during the visit of IEES PI Robert Morgan. After consultation with Morgan and review of JSEIP accomplishments, the Ministry proposed to establish Curriculum Instructional Materials Development Teams for all core subjects. The development of the Instructional Materials Development Teams in all core CJSS subjects is perhaps the most critical activity for the long-term achievement of JSEIP objectives. Each team will be headed by a coordinator (an Education Officer from CDU or the Secondary Department) and will include two teachers who will be released for full-time work. During October 1986, the subject MDT Coordinators met to work out the details of selecting team members, establishing a set of tasks for the teams, and a timeline for team activities.

An important activity of the CCSC has been the establishment of a committee to design a Comprehensive Needs Assessment related to the stated broad aims of the nine-year curriculum. The committee has met regularly since June 1986, and has developed a framework for carrying out a number of studies. A one-day workshop was conducted in October 1986, where all subject panels, curriculum officers, representatives from Molepolole College of Education and the University met to review and specify the stated aims of the nine-year basic education program. In particular, the group specified the procedures and information needed to determine knowledge, skills, and attitudes that should be covered in the CJSS curriculum.

Each subject panel for CJSS had previously followed a different format and used varied criteria in the preparation of syllabi and materials. After meeting with all the subject panels, the CCSC has now established a framework and set of guidelines for the preparation of all syllabi. Although initially there were questions of procedures, the CCSC is now recognized as having the authority to establish curriculum standards.

Proposals to merge the existing separate primary subject panels and secondary subject panels into National Subject Panels (grades 1 to 12) have been endorsed at

the policy level, and presented to all Education Officers. The details and phasing of this transition are now being worked out.

Improving Teacher Training

During the previous reporting period (December - June 1986) JSEIP staff, with counterparts from CD/E, the Secondary Department, the Planning Unit, and MCE, visited schools throughout the country to observe classes, interview teachers, headmasters and school board members, conduct a structured survey, and hold CJSS staff seminars. A total of 44 schools were visited, and 210 questionnaires were collected (representing a 25% sample of all JSS teachers) for the survey. A report of these activities in April 1986 provided direction to JSEIP activities and particularly to the newly-formed CCSC. The survey provided the foundation for the design of inservice workshops, and greatly aided the posting of student teachers for Molepolole.

One critical need identified in the survey was the clarification of the objectives and methods to be used in the new subject, Social Studies. There was considerable confusion among teachers concerning the subject, since no teachers had been trained to teach it and the syllabus, teacher's guide, and supporting materials were generally considered to be inadequate. A series of 15 intensive workshops, with all Social Studies teachers in the country, were conducted between June and September 1986. Teachers were provided specific guidance and training, and were asked to develop instructional objectives, materials, and assessments. The Social Studies Panel members assisted in all the workshops. The assessment of these workshops by the MOE Education Officers involved has been very positive, and this series of workshops has served as an example for training in other subject areas.

The preliminary needs assessment efforts of the JSEIP team also identified the teaching of Setswana as a critical subject area needing immediate attention in the new CJSS program.

In October 1986, the Secondary Department requested the Curriculum Officer for Setswana to take over the responsibility for the development of the subject. This government initiative now presents a significant opportunity to assist in a curriculum area which is highly visible and where instructional design is needed.

Kent Noel, JSEIP Senior Specialist in Instructional Systems Design, is now working closely with the CDU Setswana Curriculum Officer and the Panel in clarifying and reformulating the syllabus. This group, with Noel's assistance, has now begun the process of elaborating and specifying subject objectives. Setswana, like Social Studies, can become an exemplary subject, which teachers and Education Officers can value and respect.

A series of intensive English reference group meetings were held during October 1986, with Kent Noel assisting in the planning of the agendas, preparing background materials and briefing members. Joint English and Setswana meetings were held with Paulston, USIS consultant in sociolinguistics working in South Africa, which has established a program to develop the teaching of English as a Second Language. These meetings resulted in the decision to achieve a closer cooperation between the English and Setswana Panels in order to develop strategies for dealing with existing language arts problems in Standard 7 and Form 1.

JSEIP provides four RTAs at the Molepolole College of Education (MCE). Only one of the job descriptions of the four RTAs specifies core subject teaching responsibilities. The other posts relate to strengthening the MCE staff, evaluation procedures, and to the development of Instructional Systems at the College. JSEIP has assisted MCE in:

- establishing a new MCE Department: Art, Craft, and Technology;
- planned and organized the first preservice teaching practice for the College;
- developed and taught two new courses for the Department of Education;

- organized micro-teaching in six departments; and
- organized and conducted a series of staff seminars.

Staff Training: Joint Masters Program Between the University of Botswana and the Florida State University

Long-term training of MOE staff under JSEIP was initially scheduled to begin in September 1985, with six persons going to the USA for two-year Masters degrees. During the course of the Project, 18 staff were projected to receive two years of overseas training. As JSEIP implementation began, however, it proved impossible to identify a sufficient number of candidates for this program from within the Ministry of Education who could be released for two years for overseas training. An alternative strategy was therefore required. A joint Masters degree program with the University of Botswana (UB) and Florida State University (FSU) and ultimately approved.

Instruction will be given at both universities for 10-15 Botswana participants from within JSEIP. The degrees will be awarded by FSU's Department of Educational Foundations and Policy Studies (EFPS).

The Masters students will begin studies at UB in January 1987, followed by two semesters of coursework at FSU in the Summer and Fall of 1987. The students will also complete comprehensive examinations and supervised field research in Botswana to fulfill the program requirements. Faculty from the UB Faculty of Education, the FSU Department of EFPS, and JSEIP staff will participate on student committees and will lecture for program courses.

The design of this cooperative degree program has several advantages over fully U.S.-based resident Masters degree training:

- A cooperative degree program can be completed with participant less time out-of-country and away from JSEIP duties.
- The savings (almost 60%) associated with less out-of-country training

time and utilization of the local University, will allow an increase in the total number of trainees.

- A cooperative program design contributes to strengthening the graduate program in education at the University of Botswana.
- Most importantly, the cooperative program design significantly increases the relevance of the training to the immediate and future problems of Botswana education.

The joint Masters program has proven to be an excellent model of institutional collaboration and appropriate training for improving education efficiency.

Summary of Project Progress. As of December 1986, the JSEIP Project has completed a little more than its first year of activities. It is useful to examine the anticipated project milestones summarized in Annex K and L of the JSEIP Project Paper, in terms of accomplishments to date. Below is a list of the steps, taken from these two annexes, which should have been completed or substantially underway during the first project year of JSEIP. An estimate of progress is included for each. This progress has been estimated from reports, project documents, and other information sources, because the field project staff has not provided precise accomplishment data with respect to these milestones. Ash Hartwell, JSEIP Chief-of-Party, has been asked to report progress in future field reports, against these project milestones, and to relate the progress reports to the outputs enumerated in the Project Paper Logical Framework.

Major Steps: Curriculum and Instructional Development

1. Integrate JSEIP advisers with curriculum development panels for major subject areas, e.g., math, science, English, etc. (These tasks have been completed.)
2. Analyze content and instructional resources of existing curriculum. (This analysis is complete.)
3. Form interdisciplinary committees of private and public sector subject specialists to review educational goals and objectives. (This work is complete, except for Social Studies and Practical Education, which is still underway.)

4. Compile exemplary curricula from other educational systems where possible and appropriate. (This task is essentially complete. As new resources become available they are continuously added to the inventory in Botswana.)
5. Analyze teaching/learning requirements in terms of social, personal, and work preparation requirements by area and level. (Substantial progress has been made on this task for the major subject areas. The work was slowed by the delay in the formation of the Instructional Materials Development Teams.)
6. Elaborate educational purposes to be served by the Junior Secondary Program. (This task is essentially completed.)
7. Compare existing curriculum content with these defined educational purposes. (This task is approximately half completed.)
8. Specify curriculum areas where subject matter content must be revised, updated, or created anew. (This work is nearly half completed.)
9. Develop and sequence student learning objectives for each block of instruction. (This task has just been started.)
10. Survey off-the-shelf instructional materials to judge their adequacy for effectively teaching the objectives. (This task is underway, with about twelve months work remaining to be done.)
11. Identify the objectives for which no suitable materials exist and for which new materials must be developed. (This task is just getting started.)
12. Determine which type of media will be developed for which objectives consistent with cost and logistical feasibility. (This work will begin in the first quarter of the JSEIP second project year.)
13. Develop needed instructional materials: textbooks, work books, student guides and teaching aids. (This work has not yet begun.)
14. Develop diagnostic, criterion-referenced tests for learning progress checks by learners and teachers. (This work has not yet started.)

No other milestone steps in curriculum and instructional materials development were scheduled to be undertaken before the end of the JSEIP first project year.

Major Steps: Inservice Teacher Training

1. Analysis of skills/knowledge of junior secondary teachers in the field. (This task has been essentially completed.)
2. Establish priorities for most urgently needed training areas. (This task has been completed.)

3. Implement "high priority" inservice courses. (A number of inservice teacher training courses have been implemented to date. Before the numbers of teachers specified in the Logical Framework can complete the necessary inservice training, this program will have to be substantially expanded. It is unlikely that this training will be completed by the middle of the JSEIP second project year, as indicated in the milestone chart in Annex L.)
4. Coordinate with JS curriculum of CD/E. (This is being accomplished. Teacher trainers are among those assigned to the Instructional Materials Development Teams and JSEIP Resident Technical Advisers responsible for teacher training (both inservice and preservice) regularly participate with the IMD teams.)
5. Identify teaching subjects for skill upgrading. (This work is underway and is about 40% completed.)
6. Identify ISD skill/knowledge applications for the teachers. (This work is started, but much remains to be done.)
7. Identify skill/knowledge deficiencies for field teachers. (This work is underway, and is about 50% completed.)
8. Design and organize inservice teacher training program. (This work is well underway.)

The JSEIP Project Paper did not include milestone charts for the other areas of project responsibility, e.g., administrator and supervisor training, preservice teacher training, and strengthening the planning and management capacity of the Ministry of Education. However, progress has been made in these latter areas and the field project staff have been asked to develop milestone charts for these areas consistent with the output delineated in the Logical Framework.

1.1.3 Projected Activities

Central IEES Activities. Activities for the next six months in Botswana focus on the installation and training for computerized management information systems. IEES Principal Investigator Morgan was unable to complete the update and revision of the Country Implementation Plan during his visit to Botswana in July-August 1986. He met with the IEES Country Steering Committee and with JSEIP COP Hartwell and Deputy Permanent Secretary Jakes Swartland to discuss the status of

IEES activities in-country. It was evident that the IEES-supported work on the development of the Education Management Information System for the Unified Teaching Service and the Department of Nonformal Education would carry into project years two and three, and that this work would essentially consume those IEES resources allocable to Botswana for this period. Given demands on Morgan's time from the JSEIP project, it was decided to defer the revision of the country plan until late Summer or early Fall 1987. The following activities are now proposed and will be tentative until approval of the plan.

Education Management Information Systems. The development of an Education Management Information System (EMIS) for the Department of Nonformal Education will be substantially completed this spring. The EMIS for the Unified Teaching Service (UTS) will be implemented over the next six months, with completion targeted for October. Those activities to be completed by June 1986 are as follows.

ACTIVITY ONE: Three week activity (January) in Botswana. The EMIS will be installed for the Department of Nonformal Education, and operators trained in the use of the system. Necessary documentation, including a summary, will be prepared and updated. Further development of the UTS EMIS will be planned.

ACTIVITY TWO: Three week activity (February) in the U.S.A. The design of the EMIS for the UTS will be completed, and the computer operating system will be selected.

ACTIVITY THREE: Five week activity (March/April) in the U.S.A. This activity involves developing the prototype for the UTS system.

ACTIVITY FOUR: Three week activity (May) in the U.S.A. Three participants from Botswana will come to the U.S. for three weeks of training (one in Washington, two in North Carolina) on the UTS prototype system.

ACTIVITY FIVE: Five week activity (June/July) in Botswana. The prototype of the EMIS for the UTS will be delivered and installed. Training will be conducted

for the systems administrator and the data entry personnel. The specialist will additionally assess modification requirements of the System.

Country Implementation Plan. Country Implementation Plan revision is scheduled to be completed during the third quarter of 1987. The revised plan will include an updated list of activities, reflecting the further development and refinement of IEES activities in Botswana.

JSEIP Projected Activities. JSEIP activities include the activation of the new CJSS Evaluation Task Force, the completion of designs for two of the proposed Education Centers, the completion of drafts of course materials for the new Communications and Study Skills course, and the finalization of the Education Department Curriculum for the Molepolole College of Education.

A National Curriculum Conference is scheduled for the end of April. Plans are underway for the President of Botswana to open the Conference, and for a full program of local and international resource persons to review the status and plans for the CJSS and Nine-Year curriculum.

Three consultancies will assist JSEIP activities during the upcoming term: a Needs Assessment Consultant, an Instructional Materials Specialist for a new course in Communications and Study Skills at the Molepolole College of Education, and an English language competency study, through contract with the University of Botswana.

The UB/FSU Joint Masters Degree Program will begin in January in Botswana. Students will begin their studies at UB, and continue in May at the Florida State University.

1.1.4 Constraints Encountered and Anticipated

The major constraint encountered during this report period has been the lack of counterpart staff, particularly for the work of instructional materials

development and inservice training. The establishment of the Curriculum Materials Development Teams can be expected to make a substantial difference (although the members of these teams still require orientation and training) in eliminating this constraint. The joint Masters program will also place participants and will be attached where possible to ongoing research and materials development work. When their training is completed, these program participants will ultimately provide the trained manpower needed to carry out the functions of the JSEIP staff when the project is completed.

The postponement of the establishment of a Department of Teacher Education within the Ministry of Education has meant that the management, organization, and staffing of the Education Centers continues to be problematic. Although the designs have been completed, and tenders were scheduled to go out in November 1986 for the first two centers (Maun and Selebi-Phikwe), it is not yet clearly determined how these centers will be staffed, financed and supervised.

1.1.5 Conclusions and Implications for the Future

JSEIP has made substantial contributions in developing the MOE's institutional capacity to develop and manage the Junior Secondary Education system through its activities in organizational development and coordination, and the development of the MOE Education Management Information Systems (EMIS). The Curriculum Coordination Steering Committee has been established and has created several task forces and committees for planning and organizing activities, such as the Needs Assessment Committee, a Curriculum Structure Task Force, an Intensive English Committee, and a National Curriculum Conference Committee. The Molepolole College Advisory Board has been established specifically to achieve and sustain the goals of an expanded and improved junior secondary system.

The MOE EMIS capability now includes the generation and utilization of school mapping data, an established CJSS database, utilization of CJSS staffing analyses,

and a community public information pilot initiative for community awareness and support of the CJSSs.

The quality and efficiency of the expanded junior secondary educational system has also been increased through the period's activities. A comprehensive needs assessment has been designed related to the broad aims of the nine-year curriculum. Curriculum and Instructional Materials Development Teams have been established for all core CJSS subjects.

All Social Studies teachers have participated in inservice workshops in which teachers were provided specific guidance and training, and have collaborated in developing instructional objectives, materials, and assessments for the subject. A similar inservice series of workshops is presently being planned for Setswana teachers.

The Molepolole College of Education has an increased capacity for junior secondary teacher training through the establishment of a new department, two new courses, preservice teaching practice, and micro-teaching in six departments. Masters training is now annually available for 10-15 Batswana MOE staff and teachers though the program jointly sponsored by the University of Botswana and the Florida State University.

The impact of IEES Project activities, as the result of JSEIP and other assistance has clearly been significant during this report period. The further implementation of projected activities as described in this report indicates that even greater impact on the educational system in Botswana can be expected in the future.

1.2 ACTIVITIES IN HAITI

1.2.1 Background

IEES activities in Haiti began in late 1984 when the USAID Mission requested that the consortium conduct an EHR Sector Assessment to guide it in drafting plans for bilateral assistance to that country over the next several years. The sector assessment was conducted between October and December 1984 under the direction of IIR.

A first draft of the synthesis chapter of the Assessment was completed and sent to the USAID Mission in Haiti in January 1985. In April 1985, a preliminary and unedited version of the complete Assessment was forwarded to the Mission to assist it in drawing up its own planning for intervention in the education sector. By early September 1985, all draft documents in English and French had been disseminated to counterpart institutions in Haiti.

The Sector Assessment was highly instrumental in influencing the USAID Mission's decision to focus on strengthening Haiti's human resource base as one of its three principal strategic options for the future, and to envisage designing and funding a five-year \$15 million project, Incentives for Improving Basic Education (IIBE). The IIBE Project represents USAID's first involvement in formal education in Haiti since the late 1950s. The IIBE Project was viewed by the Mission as the first stage in a potentially longer-term (15 year) endeavor to support basic education in Haiti. It was decided to place principal emphasis during the first phase of the project on the private sector for three reasons:

1. The majority of primary school students are enrolled in private schools.
2. Other major donors to Haitian education (the World Bank, the Interamerican Development Bank, French and Canadian bilateral aid) had concentrated essentially on the public sector and considered complementary donor activity in the private sector to be essential.
3. The approach was consistent with Mission and AID policy concerning optimal use of private sector resources.

Peter Easton and Mary Pigozzi visited Haiti from June 16 to July 5, 1985, to assist USAID Mission staff in preparing the Project Identification Document (PID) for the IIBE Project and to develop specifications for the economic analyses to be undertaken during project design. IEES then provided a project paper team in November 1985 to assist the Mission in the design process.

Team members held numerous consultations with counterpart groups in the private sector, particularly Catholic and Protestant educators, to review and develop project design. A joint Protestant-Catholic project design committee was created to collaborate in the development of the IIBE Project. Protestant-Catholic collaboration in project design was further facilitated by the fact that a representative from each of these educational subsystems attended the IEES International Workshop in Botswana in November 1985, where they discussed educational planning issues relevant to Haiti with each other and with educators from other developing countries.

By January 1986, it was possible to establish relations with key counterpart structures in the private sector and to develop with them the principal aspects of project design. The main features of the IIBE Project as designed in this November-January period can be summarized as follows:

1. The project covers six years. The Mission currently considers this project to be the first phase of a multi-stage endeavor to support Haitian education which may continue over a 15-year period.
2. The purposes of the project are to improve quality of instruction, administrative efficiency, and equity of access in private primary schools serving rural and economically depressed urban areas; and to provide the necessary catalyst and support for Haitian private primary education to organize itself on a more coherent basis.
3. The project has four interrelated components: private school support, research and development, organization of private education associations, and reinforcement of the Ministry of Education. The specific objectives of these components are the following:

- (a) **Private school support:** Provide a significant proportion of existing private primary schools in the target areas (about 15% of the total) with a package of key pedagogical and material resources over a continuous four to five year period. Between 300 and 400 schools will be supported in this way on a performance-contract basis.
- (b) **Research and development:** Undertake research and development aimed at broadening the set of available instructional and material inputs and improving their effectiveness. Attention will be focused on uses of radio education, programmed teaching/learning and preprimary instruction.
- (c) **Organization of private sector education:** Provide the stimulus, resources, and assistance necessary for the three main subdivisions of the private sector of Haitian education (Catholic schools, Protestant schools, and proprietary and community schools) to take responsibility for organizing, supervising, and monitoring these efforts on an ongoing basis.
- (d) **Public sector reinforcement:** Strengthen the Ministry of Education's capacity to perform the system-wide and essentially public functions of accreditation, examination, evaluation, and applied research needed to support harmonious development of private education.

An IEES team returned to Haiti in March and April 1985 to complete the project paper work and to conduct the sector assessment review. A great deal of interest was expressed in continuance of sector assessment work and in further association with IEES. Ministry counterparts pointed out, however, that the most important step to be taken toward better assessment of the educational system was improving the Ministry's basic data collection system.

1.2.2 Accomplishments During Report Period

During the report period, IEES assumed full responsibility for first year implementation of the IIBE Project in addition to pursuit of the Country Implementation Plan and Policy Research activities already programmed or projected. Though the objectives of these three strands of consortium involvement in Haiti are highly interrelated and there is a good deal of overlap in field execution, each has its own agenda of activities. In this section and the two following ones ("Projected Activities" and "Anticipated Constraints"), developments in the three

areas will be reported separately. In the final section ("Conclusions and Recommendations"), more explicit attention will be given to their interrelation and to the perspectives for future involvement in the country that they jointly represent.

1.2.2.1 IEES Activities

Development of the Haiti Country Implementation Plan for IEES Activities

An important aspect of the Country Implementation Plan (CIP) development process has been the involvement of the Government of Haiti, donor representatives, and private sector groups in the identification of strategic opportunities and specific project activities. Such involvement predates the phase of formal discussions conducted in July and September 1986, and has been associated with in-country review of the Haiti EHR Sector Assessment, and with USAID/Haiti project design activities conducted earlier this year.

The first phase of formal discussions with the Ministry of National Education was conducted from July 1-July 21, 1986. The IEES Consortium was represented by Milton Adams and Peter Easton, both of Florida State University. During this TDY, discussions were also held with major donors to identify target opportunities for donor support and cooperation. The major outcomes of the July mission are summarized below:

- the writing of draft CIP background chapters,
- creation of an IEES National Steering Committee
- consensus was reached with the Steering Committee on a preliminary outline of priority objectives and prospective activities to serve as a framework for further development of the CIP, and
- consensus was reached with major donors on the importance of an IEES focus on strengthening Ministry of Education central planning capabilities, and support was generated for the conduct of cooperative activities within the scope of the CIP.

In September 1986, the same IEES team returned to Haiti to begin the process of delineating a set of IEES objectives and activities from the range of target opportunities proposed in July. Adams and Easton were joined for one week by AID Cognizant Technical Officer Joan Claffey (S&T/Ed). This work, conducted from mid-September through early October, involved two plenary meetings of the IEES National Steering Committee and four working sessions with a technical subcommittee designated by the Minister of Education. The outcomes of this mission are the IEES objectives, strategies, and activities outlined in the draft IEES/Haiti Country Implementation Plan. These activities are designed around a central long-term objective, supported by four contributing CIP objectives. These are:

IEES/HAITI LONG-TERM OBJECTIVE

1. Reinforce the capacities of the MOE Central Planning Division

COUNTRY IMPLEMENTATION PLAN OBJECTIVES

1. Strengthen MOE Capacity for sector analysis and planning.
2. Assist the MOE in establishing an efficient system of data collection and information management to support improved planning and decisionmaking.
3. Strengthen institutional capacities for conducting policy research in areas of priority concern through Haitian participation in the IEES Policy Research Initiative.
4. Assist the MOE in establishing a Private Education Office.

The Haiti CIP was presented for approval at the December 9-10 meeting of the Executive Management Committee held in Washington. Due to the inadequate amount of time available for a complete review and discussion of the document, approval was only granted to conduct the set of activities scheduled through March 1987. The remaining set of proposed activities is expected to be reviewed for approval in January 1987, when members have thoroughly reviewed the complete Plan.

Recruitment of Long-Term Personal Services Consultant

On December 1, 1986, Jean-Marie Leroy was contracted as a local consultant to direct all activities associated with the Policy Research Initiative (PRI) in Haiti, and to plan, conduct, and coordinate designated CIP activities. This agreement responds to several interests and concerns of both Government and IEES.

Leroy's first responsibility is to direct PRI activities. The Ministry has indicated that this work is to be associated with the Ecole Normale Superieure (ENS) of the State University of Haiti so that this activity can have an institution-building effect. Leroy would be expected to teach courses related to educational research, planning and policy analysis, laying the groundwork for the transformation of ENS into a College of Education, and expanding the pool of qualified educational specialists able to participate with the Ministry in educational development efforts, including the IEES Policy Research Initiative.

Contracting the services of a long-term consultant in Haiti also responds to IEES Project needs. Maintaining continuity and coordination for the range of IEES activities in Haiti will require more field presence than can be provided by short-term technical assistance alone. Under contract specifications which are currently being prepared, Leroy will perform services of liaison, activity preparation, and follow-up activities in support of CIP initiatives.

Design of MOE Administrative Staff Training Needs Assessment

As a priority activity of the Haiti Country Implementation Plan (CIP), the Ministry of Education requested technical assistance from IEES in the design and conduct of a training needs assessment focusing on central and regional administrative personnel. The expected immediate outcome of this study to document MOE administrative training requirements with sufficient specificity to better position the MOE for available donor funding (AID), in a manner which assured its optimum impact upon organizational efficiency and goal attainment.

Milton Adams visited Haiti from December 8-18, 1986, to undertake the task of designing the proposed study in collaboration with MOE staff. During this visit, it was learned that because of the short timelines associated with AID documentation, programming, and disbursement requirements, it was necessary that the MOE proceed with the nomination of 25 staff for short-term and Master's level scholarships scheduled to begin in early 1987 and continue through 1990. In a series of discussions with MOE officials, a consensus was reached that though this development lessened the sense of immediacy of the planned training needs study, it was important that the study go forward for several reasons. First, it was felt that the MOE could still benefit from a systematic analysis of training needs, particularly for the planning of short-term in-country workshops to be organized by the MOE, IEES, and other donors.

Additionally, it was felt that training should be closely linked to a system of performance evaluation, and that both of these elements needed to be integrated into a larger, more rational organizational management framework. Subsequent discussions with MOE officials led to the development of an integrated system model for achieving this goal. The central objective of this integrated training model is to provide a systematic procedure for the identification and prioritization of training needs, which systematically links this activity to long-term MOE objectives for institutional development and improved organizational management.

The training needs assessment, and the implementation of the model will be conducted in January 1987 on a limited scale within the MOE Division of Planning, comprised of about twenty professional and technical staff members. Once the system has become operational, it can be adopted by other units within the Ministry with little need for external technical assistance. To increase the potential benefit of the activity, it has been proposed by the Ministry that a second MOE unit be included, such as the Direction of Personnel.

1.2.2.2 Policy Research Initiative

During initial CIP negotiations in Port-au-Prince in July 1986, the topic of Haiti's participation in the IEES Policy Research Initiative was also discussed with Ministry officials. Concurrence was reached that the topic of educational decentralization (Support of Local Capacity) and coordination of private initiative was the most appropriate one, given the circumstances of the Haitian educational system and the findings of the sector assessment. As described above, the Ministry suggested that Jean-Marie Leroy be engaged as policy research team leader and occupy a position as intermediary between the ENS and the Ministry.

In his capacity as PRI Country Team Leader, Leroy participated in the PRI planning session on "Strengthening Local Education Capacity," held December 15-18 at Howard University. As part of the process of developing a final research proposal for the February PRI planning meeting in Indonesia, he has held preliminary discussions with local educators and MOE officials designed to ensure the adoption of this general research theme to Haitian information needs.

1.2.2.3 IIBE Project

In June 1986, the IIBE Project was approved by the Haiti USAID Mission. Because of the positive history of IEES work in Haiti and good professional relations established with MOE officials, the Mission requested to buy into the IEES contract for initial planning and implementation of IIBE. The contract amendment for this work was signed in early September, covering the period from September 1, 1986 to October 30, 1987.

The USAID Mission in Haiti signed a separate grant agreement with the Government of Haiti for the public sector portion of the IIBE Project in early September. The two parties also signed at the same time a memorandum of agreement in which the Government acknowledged the project in its entirety as a significant contribution to the development of Haitian education.

Principal accomplishments in project implementation during the report period will be summarized under five headings: school support, institutional development, project administration, personnel recruitment, and procurement.

School Support. The first of the two principal purposes of the IIBE Project is "to improve quality of instruction, administrative efficiency and equity of access in private primary schools serving rural and depressed urban areas." The project is slated to reach 300-400 schools of this type by the fourth year of implementation. The first year was planned as a pilot phase during which 25 schools would be assisted in two experimental zones, the first near Cavaillon in the Southern Department and second around Hinche in the Central Department.

Work on this first phase of implementation was begun by members of the joint Protestant-Catholic project design committee even before the contract with IEES was signed. The first cohort of schools in the two pilot zones was selected in July. Using discretionary program monies provided for this purpose by the Mission, committee members organized in late August an introductory IIBE inservice training session for teachers and directors of the 25 schools chosen. Attendance was good and the sessions were judged by the participants and the two recently returned Haitian-American evaluators engaged for this purpose to have been a success in conveying the goals and strategies of IIBE.

Twenty-two of the twenty-five schools were furnished with the initial supply of instructional inputs (books and school supplies) in November and December. Two schools had to be dropped, one because it was found to have other sources of philanthropic support and the second because its teachers were too underqualified to derive benefit from the training or to carry out project-related tasks. Classroom equipment was ordered for participating schools, but because of the time required to produce and deliver it, along with the late starting date of the orders, little of this material actually reached the schools during the report period.

Project staff from the temporary IIBE Office in Port-au-Prince visited the schools once a month in October, November, and December to check on reception of the material and application of the methods learned in the summer sessions. One project monitor was hired in each of the two major regional locations to provide additional inspection and support services. There were a number of snags in materials delivery and scheduling of inspections and--given the major efforts at institutional development and administrative set-up that had to be undertaken at this initial stage in the life of the project--there was relatively little time to work out the core elements of project methodology (e.g., final performance contracts). This initial involvement with schools, however, afforded a critical opportunity to try out project administrative mechanisms, get feedback from field personnel about methodology, and establish an IIBE presence in rural education.

At the same time, the preprimary portion of the IIBE Project began to take shape. As a means of making resources for preprimary education available to participating schools, the project proposes to absorb an existing preschool program currently managed by CARE (the Community Integrated Nutrition and Education Center - CINEC), and to help CARE staff to develop in a certain number of schools more cost-effective versions of the high quality work it has already accomplished. Because the home office of CARE in New York had not been entirely abreast of the evolution of the IIBE Project during the project design phase, some time had to be spent this Fall in initiating their representatives to the proposed methodology. Subsequent to this, CINEC staff, with the assistance of two IEES consultants (one recommended by CARE/NY), were able to begin more detailed design of the field experiment to be conducted over the next two years as a means of developing less expensive and more applicable forms of preprimary training for private primary schools.

Institutional Development. The second general purpose of the IIBE Project is "to provide the necessary catalyst and support for Haitian private primary

education to organize itself on a more coherent basis and to take ongoing responsibility for quality improvement efforts." This effort is planned to evolve in two major directions. The first and principal one involves organization of private education structures; the second one concerns reinforcement of the accreditation, examination, and inspection capacities of the Ministry of Education.

Organization of private education was given great impetus at an early date by the process of project design, which was conducted in a highly participatory manner and entailed the creation of the first joint Protestant-Catholic Education Council in Haiti in recent memory. As indicated above, Council members took responsibility for carrying out a summer inservice teacher training session in which teachers and directors from all schools of the first cohort took part. The Council continued to meet once every three weeks on the average throughout the fall to supervise all aspects of project implementation.

Project methodology calls for the establishment of a "Technical Services Center" and two or three affiliated Sectoral Service Centers--one on the Catholic side, one on the Protestant side, and one for secular proprietary schools (or "lay schools," as they are called in Haiti), should there prove to be enough of this latter category in the areas targeted by the project to justify this additional structure. The SSCs are placed under the direction of Sectoral Education Councils (Protestant, Catholic and possibly lay) composed of prominent educators from these sectors designated by member schools or their representatives. It is in fact the membership of the Protestant and Catholic Sectoral Education Councils who, together with representatives of USAID and the contractor, presently form the overall Project Administrative Council.

The Sectoral Education Council and the SSCs are seen as the potentially permanent entities in Haitian education whose institutional capacities need to be developed, whereas the Technical Services Center is considered to be a temporary

technical assistance facility charged with helping the sectoral structures to become operational and with providing the technical assistance necessary for project implementation. The financial mechanism for developing the institutional capacity of the sectoral structures is for the prime contractor or grantee to subcontract progressively larger portions of project operations to them. To initiate subcontracting, however, it is necessary that the Sectoral Education Councils first obtain legal status as associations or foundations under Haitian law. This process posed both political and technical problems which consumed much of the time from September to December 1986.

For the Protestants, the notion of creating an independent and legally-constituted association posed no problem of principle, but the mechanics turned out to be lengthy. Statutes had to be drawn up by a lawyer and approved by Council members, accounts had to be opened in banks, and even the final notarizing of the document of incorporation became a very involved procedure. In early December 1986, the last of these steps were still being executed, and the subcontract with the Protestant body thus had not yet been signed.

For the Catholics, the issue was rather one of principle. Since the National Council of Bishops already had legal status, it was argued that this could be bestowed upon the Catholic Education Council without creating a separate entity. Catholic counterparts were concerned about the propriety and political consequences of legal status for a subunit of the Church. Discussion centered on what powers of interference in Catholic education might be ceded to the government by making Catholic schools in some sense responsible to a new association bound by laws about disclosure, oversight, and accountability. By December, the issue was still not thoroughly resolved. Establishment of the Catholic Sectoral Service Center was going ahead, however, because members of their Education Council decided that the best action was to allow the Catholic subcontract to be reabsorbed into the main

contract between AID and IEES until such time as they felt able to work the issue out with the bishops.

Though institutional development was one of the two main thrusts of project design, the project paper did not spell out exactly how capacity for financial and administrative management was to be built up in these new structures or just what timeline would be followed. In essence, with the rapid development of the joint Protestant-Catholic project design committee into a Project Administrative Council (PAC), and its active involvement in the organization of training sessions, the recruitment of personnel and the monitoring of budgetary questions, it became evident in the course of the last few months of 1986 both that the new Haitian institutions involved might be ready well before the end of the project to take over a good part of the responsibility and that the groups involved wished to have a greater and clearer say in project management. At the request of the PAC, a consultant was therefore brought in to study the question of progressive transfer of administrative and financial responsibility to Haitian institutions and to propose a strategy. This role was filled by Simon Fass, a regional planning specialist familiar with Haiti, who had served as economist on the project paper team. He worked out a scheme calling for subcontracting of progressively larger portions of the project budget to the Protestant and Catholic entities, this transfer of responsibility to be contingent on the establishment of proper administrative structures and evidence of the adoption of healthy administrative procedures at the local school level.

Project Administration. Starting in September, a project backstop office was set up within the Learning Systems Institute (LSI) of Florida State University, staffed by the Project Backstop Officer (50% time), an administrative assistant/secretary (100% time) and three graduate assistants (totaling one full-time equivalent). LSI accountants also furnished part of their time to help with the

accounting tasks. Over the course of the last few months, this office has been responsible for organizing recruitment of technical assistance personnel, coordinating the missions of short-term consultants, coordinating procurement of necessary equipment and supplies, and managing the project budget.

The following consultancies were carried out over the period in support of IIBE Project implementation.

Consultant and institution	Dates	Assignment
Peter Easton, FSU	21 Sept - 10 Oct	Project Coordination
Stephen Anzalone, IIR	15 Sept - 03 Oct	Procurement of School Supplies
Mary Pigozzi, IIR	22 Sept - 10 Oct	Preprimary Ed Component
Peter Easton, FSU	26 Oct - 05 Nov	Project Coordination
John McLanahan, FSU	26 Oct - 11 Nov	Equipment Procurement
Simon Fass, Univ. Minn.	22 Nov - 12 Dec	Institutional Development Strategy
John McLanahan, FSU	23 Nov - 29 Nov	Equipment Procurement
Mary Pigozzi, IIR	01 Dec - 13 Dec	Preprimary Ed Component
Peter Easton, FSU	30 Nov - 13 Dec	Project Coordination

Joan Claffey, IEES Cognizant Technical Officer also visited Haiti from September 21-27 to meet with Haitian educators and the USAID Mission regarding implementation of the IIBE Project. In addition to this personnel, a local consultant, Antoine Levy, was hired to assist with monitoring the school support activities and with developing a monitoring system. Levy served in this capacity from October 8 through December 3, 1986.

Recruitment of Personnel. A major effort during this report period was the recruiting of personnel for the project, both long-term technical assistance and staff of the two Sectoral Service Centers.

Three long-term TA positions within the Technical Services Center (TSC) were slated to be filled in the course of the first IIBE Project year: Educational Planner/Director of the TSC, Specialist in Educational Research and Evaluation, and Specialist in Educational Administration and Institutional Development. Two basic orientations for the recruiting task were defined at the outset: (1) An effort should be made to locate qualified Haitian candidates incountry or among the overseas diaspora community; and (2) evaluation of candidacies and interviewing of finalists should be done in Haiti with the full participation of the Project Administrative Council.

Position announcements were disseminated in August by several means: advertisements in three daily newspapers in Haiti, in a Haitian diaspora journal in New York, and in the Chronicle of Higher Education. Notices were also placed in the personnel bulletin of the Florida university system, announcements were made to all IEES institutional coordinators, and letters were sent to over 100 other professionals in the educational development field identified through personal acquaintance or through the Starsearch facility. Seventy-five applications for the three positions were received by the official closing date, September 26. Over forty of them were from Haitians living in Haiti or abroad. Copies of all of these were taken to Haiti, where the selection process went through three phases:

1. In October, a selection committee named by the Project Administrative Council narrowed the field of 75 applicants to 7 semi-finalists per position through an evaluation process based on five compound criteria.
2. In November, additional information was requested of these semi-finalists, and in this way the field was further narrowed to three finalists per position, or eight overall (including one person who was considered for two posts).

3. In early December, all eight finalists were interviewed in Haiti by the selection committee, the newly-named directors of the Protestant and Catholic Sectoral Service Centers and representatives of the USAID Mission. Candidates for the TSC Director position were interviewed in addition by the full Project Administrative Council. Seven of the eight candidates were of Haitian origin, and three live currently in Haiti.

At the end of the report period, the candidate selection committee was preparing to submit its recommendations to the Project Administrative Council and the USAID Mission.

As for SSC staff, the Catholic and the Protestant Councils both named directors for their respective Sectoral Service Centers in the month of October, and the two people in question began working on the project as local-hire consultants until such time as the subcontracts were worked out. Two regional monitors were also hired, one to cover the Cavaillon region and the other to work in the area of Hinche.

Procurement. IEES has major procurement responsibilities under the IIBE Project. Since the SSCs to be established are private entities and are not yet sufficiently constituted to contract directly with USAID or receive their own grants, all procurement of school equipment and supplies, as well as the acquisition of necessary materiel for the Technical Services Center and the Sectoral Service Centers, must be handled initially by the contractor. Procurement expenses in the amount of \$344,000 were scheduled for the first project year, and most of these were initiated in the course of the September to December period. School material orders must be based on the needs expressed by each of the participating schools and incorporated into their performance contract. This poses a considerable problem of collation and placement of orders, delivery of materials, and related accounting and accountability that project staff are only beginning to work out. School equipment has been slow to arrive, because it was ordered from

the workshops of local vocational/technical schools and these workshops require two or three months manufacture time.

1.2.3 Projected Activities

1.2.3.1 IEES and PRI Activities

(a) French Translation of the IEES Sector Assessment Training Manual

Purpose: This document will be translated into French for use in training workshops for educational planners in Haiti, and in other francophone countries interested in planning and managing EHR sector assessment exercises. Its use in these workshops will also provide an occasion for its authors to obtain firsthand feedback on its effectiveness as a training manual, thus allowing for improvements, if necessary, in subsequent revisions.

Rationale and Description: The MOE has expressed a strong commitment to conducting its own full-scale EHR sector assessment in early 1988. The IEES Sector Assessment Training Manual, (currently in final production) is a document intended for use as a resource support for the training of educational planners and technicians in this approach to sectoral analysis and planning. Its translation into the French language will make it accessible to Haitian educational planners and those in other French-speaking countries.

Scope of Work: Translation of the Manual will be undertaken by a team of translators in Haiti to be designated by the IEES National Steering Committee.

Schedule: January-February 1986

(b) Assessment of Long-Term Training Needs of the Planning Division of the Ministry of Education

Purpose: To identify the training needs of MOE Planning Division staff and establish a system of performance evaluation to strengthen its capacities for planning and management.

Rationale and Description: This activity is one of the prerequisite steps planned to support the MOE objective to create a central training office within the Ministry which will be responsible for: 1) determining sector-wide training needs for administrative officers (regional planning officers, inspectors, and school directors), 2) maintaining central files on the qualifications of all MOE personnel, 3) scheduling and sequencing training activities, and 4) coordinating all MOE training activities. Such an office does not currently exist. The assessment will lead to the implementation of an integrated training program within the Planning Division which will serve as a model for full implementation when the central training office is established.

Scope of Work: Working in close collaboration with Ministry staff, an IEES consultant will provide consultative services to assist in defining staff development requirements in relation to Five-Year and Two-Year National Plan objectives. The assessment will involve the identification of a) current staff qualifications, b) competences areas and skills in the areas of planning, evaluation, and policy analysis for which additional training is needed, and c) an inventory of available training resources. Short-term training needs will be met by IEES through in-country workshops conducted over the life of the project. Assistance will also be provided in designing and implementing an integrated system of staff evaluation and merit review. Findings and recommendations will be presented in March.

Schedule: January-February 1987

(c) Technical Assistance Support for Newly Established MOE Private Education Office

Purpose: To assist staff of Bureau of Private Education of the Ministry of Education in developing a workplan for their first year of support under the IIBE Project.

Rationale and Description: The IIBE Project provides for the creation of a Bureau of Private Education (BPE) to assist the Ministry in developing improved capacity for supporting, coordinating, and monitoring quality of instruction in private schools. Among other responsibilities, the BPE is to establish criteria and carry out a census of lay schools (i.e., non-religious private schools) in the areas affected by the IIBE Project to determine which might most benefit from participation in the project. The Ministry has requested that the new staff of the BPE be assisted in organizing these tasks and in the mechanics of presenting work plans and requisitions under the IIBE Project.

Scope of Work: One IEES consultant will spend ten days in Port-au-Prince briefing the BPE staff on the nature and current operational procedures of the IIBE Project and helping them to develop an annual workplan and budget out their use of project funds.

Schedule: January 1987

(d) Policy Research Initiative Planning Meeting in Indonesia

Purpose: Develop a detailed workplan and budget for the conduct of PRI activities in Haiti.

Rationale and Description: The workplan provides an outline for all research activities to be undertaken in Haiti under the IEES Policy Research Initiative.

Scope of Work: The workplan will consist of a research statement identifying major policy issues, research questions, project outcomes, and methodological

considerations related to research design, target population, and sampling procedures. In addition, the workplan will include a description of the implementation structure, identification of key personnel, a proposed implementation schedule, and a detailed budget for the use of funds allocated to each participating country for the implementation costs of the research project.

Schedule: February 1987

(e) Start-up of Policy Research Initiative

Purpose: Start implementation of Policy Research Initiative workplan activities to be developed in February at the IEES International Conference and international planning meeting held in Indonesia.

Rationale and Description: The rationale for policy research activities under the PRI will be defined collaboratively through discussions conducted in Haiti and refined at the Indonesian planning meeting. This research will place emphasis upon adapting to the Haitian milieu the general research theme of "privatization and decentralization," giving particular consideration to the policy information needs of the MEN Central Planning Unit, and to the Ministry's recently created Private Education Office.

Scope of Work: To be elaborated in workplan.

Schedule: March 1 - Research begins.

(f) Training Workshops I and II for Educational Planners

Purpose: Provide training in 1) sector assessment planning and management and 2) upgrade the technical skills of MOE planning personnel in methods of data analysis, interpretation, and reporting.

Rationale and Description: A successful approach to improving sector analysis and planning within the MOE will require that 1) relevant information be made available to planners on a regular, timely basis, and that 2) educational planners and officials are able to interpret and utilize this information to inform and shape policy. The first concern will be addressed in the CIP through efforts aimed at improving the processes of collecting and managing pertinent data and information (cf. EMIS Status Study). To ensure that MOE personnel are prepared to exploit this information for sector assessment and for ongoing sector planning and management, a series of Educational Planners Workshops (I and II) are scheduled to provide planners and evaluators with training in 1) sector assessment planning and management and in 2) technical areas of data analysis, interpretation, and reporting.

Scope of Work: Workshops I and II are conducted sequentially, each for a one week period. Series I is designed around the IEES Sector Assessment Training Manual, which is to be translated into French. Both training sessions will be directed toward the staff of the central MOE Planning Unit, and the Evaluation Section of the Institute Pedagogique National (IPN). The Educational Planners Workshop II will provide training in rapid analysis of educational data based upon IEES training materials field tested in Lome, Togo. Training also will be focused on the areas identified as training needs during collaborative technical studies.

Schedule: Workshop I, March 1987

Workshop II, May 1987

(g) Design and Start-Up of EMIS Status Study

Purpose: To provide critical information on data, equipment, and training requirements needed for the design of an improved Education Management Information System (EMIS) to support educational planning.

Rationale and Description: The pervasive shortage of current and reliable information on the status and development of the EHR sector, underlined by the findings of the sector assessment, is one of the most critical constraints to effective planning and management in Haiti. At the primary level, for example, there is no reliable information on total enrollments, number of schools, teachers, or progression rates between grades. The MOE recognizes that informed planning is the basis for effective programs, and is seeking donor aid for assistance in the reorganization of its central planning unit and regional branches, and assistance in implementing a more adequate management information system. The proposed study will assess the existing EHR management information system, analyze current and future needs, and propose recommendations for enhancing system performance.

Scope of Work: The study will be designed in close collaboration with MOE staff and donor representatives. It will 1) identify the most critical policy issues facing the sector, 2) assess current and future information needs of the MOE and donors based upon the conclusions of the first activity, 3) assess the quality of existing data sets, and 4) describe the strengths and weaknesses of present methods of data collection and storage, information flow, processing, analysis, and utilization. Recommendations will be made for the design of a more effective system, and will provide specifications for equipment requirements (software and computer acquisition or upgrading) and training, both for technicians and planners. Proposals will also consider the implications of these findings for the most effective reorganization of the MOE planning unit.

Schedule: May-June 1987

1.2.3.2 IIBE Project

Projected activities for IIBE can best be presented under the same five headings used for discussing accomplishments during the report period.

School Support. In support of the first cohort of schools, project staff will be delivering the remaining school equipment and supplies for the 1986/87 school year and, starting in April 1987, will be developing evaluation plans and instruments to begin measuring instructional progress and efficiency of administration in these schools. During the same period, a number of preparations must be made for the new cohort of schools--up to 125 additional ones--slated to enter the project next Fall. Such preparations include publicizing the nature of the project and the conditions of school selection, picking the schools from among those which apply, making initial site visits, beginning discussion of performance contracts, and planning for teacher and director participation in the summer inservice training sessions. Inservice training will be conducted this year in several locations with major assistance from existing teacher training schools, so these institutions must be contacted and details of the collaboration worked out.

Institutional Development. In the course of the next few months, it is anticipated that both the Protestant and the Catholic Sectoral Education Councils will have acquired legal status and that subcontracts can be signed with both. This will enable the Sectoral Service Centers to engage their full complement of staff and to begin taking responsibility for significant portions of project implementation. At least two of the three technical assistants within the Technical Services Center should be in position (as of this writing, it is unclear whether the position of TSC Director will be filled before June, or if these functions will have to be performed for the time being with the aid of short-term consultants) and prominent among their initial tasks will be orientation and on-the-job training for the SSC staff.

Project Administration, Recruitment and Procurement. In all likelihood, recruitment for the TSC Director will continue for at least part of the next six-month period, with the expectation that a fully adequate candidate can be contracted by June at the latest. Short-term technical assistance missions to be coordinated by the project back-up office will focus on the following areas, in descending order of importance: project management and planning, organization of monitoring systems, design of preprimary interventions, testing and evaluation, and teacher training.

1.2.4 Anticipated Constraints

1.2.4.1 IEES Activities

IEES activities began slowly in Haiti because of the uncertainty during the last days of the Duvalier regime and the rapid turnover of personnel in the Ministry of Education that was part of this uncertainty. The energies of IEES personnel were occupied for one year by design of the IIBE Project. The adoption of a Country Implementation Plan during this report period is a significant milestone. The principal constraint to its implementation to date has been the relative shortage of French-speaking technical consultants who are familiar with the IEES approach. This problem should, however, be alleviated by the presence in Haiti of the long-term IEES/PRI consultant, Jean-Marie Leroy. As Leroy gains experience in educational planning support activities, he promises to provide critical assistance in developing the IEES agenda. It should be noted that any continued turnover in the Ministry of Education could also lead to a slowdown in the rate of implementation.

1.2.4.2 Policy Research Initiative

Of key importance for the successful execution of IEES Policy Research activities is the development of a functional relationship with the Ecole Normale

Supérieure of the University of Haiti. Positive outcomes in this area are contingent on developing clear lines of coordination between the University and the Ministry in the area of educational research, and therefore on the patterns of collaboration that emerge between the new staff who occupy positions in these two institutions.

1.2.4.3 IIBE Project

Satisfactory resolution of the question of long-term grantee, completion of contracting with long-term technical assistance, signature and operationalization of subcontracts with the two Sectoral Education Councils, and approval of a plan for progressive transfer of administrative and financial responsibility to these entities appear to be the principle conditions of success in the next six months of the IIBE Project. Failure to fulfill these conditions could appreciably constrain the development of the project.

The biggest challenge facing the project in the upcoming report period is undeniably the need for careful planning and management to handle the immense material, staff training, and logistic requirements of the new cohort of schools and to ensure at the same time that the instructional and efficiency objectives of the project receive all the attention they demand. Management experience is, however, in somewhat short supply among project personnel, and considerable on-the-job training in this area must take place.

Over and beyond these endogenous constraints, the IIBE Project--like all IEES-related activities--is faced in the next six months by the external uncertainties created by the current unsettled political situation in Haiti and the possibility of changes in Government and in the Ministry of Education upon very short notice. Of particular concern to IIBE is the position of the Ministry concerning private education in general, and the possible development of a large separately-funded project to support private primary schools in particular.

Among the most important decisions to be made in the course of the next six months are those concerning selection of the long-term grantee, provision for continuity between the first year and the subsequent stages of the project, and provision for timely procurement of the materiel and services needed to enable the second cohort of schools to begin work on time at the fall opening of classes. Though the current PIO/T for first year implementation of the IIBE Project covers the period until September 30, 1987, it contains no funds for procurement of resources for the second cohort of schools. Experience demonstrates, however, that these items must be ordered and prepared as early as the previous spring or summer if everything is to be ready by the date that schools open. Either extraordinary efforts must be made to identify and contract the new grantee by June at the latest, or another means--such as (but not necessarily limited to) adding funds to the IEES buy-in--must be found to proceed with this procurement.

1.2.5 Conclusions and Implications for the Future

Though the three strands of current IEES activity have been discussed separately above, there is great potential for overlap and synergy among them. Probably the single most important common theme is the challenge of coordination between public and private education and of educational planning in a context where private schools of very diverse natures account for more than half of enrollments. The IIBE Project provides an opportunity to gain first-hand experience with--and data on--the issues involved in better organization of private education; the PRI involves ongoing policy research into the related question of the role of local and private initiative within a nationally coordinated educational system; and IEES activities constitute a frontal attack on the problems (data management, assessment, quality control) posed by Ministry supervision of such a diverse educational system. Though the IEES Consortium may not have overall implementation

responsibility for the IIBE Project beyond the third trimester of 1987, it seems highly likely that IEES will continue to provide technical assistance for the public sector portion of that project and so be actively concerned with developing coordination between the Ministry and the new project-generated structures in the private sector.

One consistent lesson of activities in Haiti, both on the side of the IIBE Project and that of IEES activities, per se, is that significant participation of host country counterparts in educational planning activities is both a condition sine qua non of success and a slow, uneven process requiring sustained commitment and technical skill on our part. In most cases, significant participation means input to policy and some direct control over the allocation of resources. Turning this responsibility partially and progressively over to appropriate counterparts and host country institutions without forswearing the IEES commitment to efficient administration requires that IEES become very disciplined and pedagogically adept at framing issues for decision, communicating the necessary information, and husbanding the decision process.

1.3 ACTIVITIES IN INDONESIA

1.3.1 Background

IEES Project Director John Bock of FSU and David Chapman of SUNYA arranged initial agreements with the Government of Indonesia (GOI) and the USAID Mission on two areas for IEES assistance in April-May 1985. The first area of technical assistance was conduct of an Education Sector Review. The second area was in connection with the USAID-sponsored Education Policy and Planning (EPP) Project. The assistance to EPP consists of identification and placement of three long-term technical advisors and additional short-term consultants to assist Balitbang Dikbud (Research and Development Office of the MOEC) and provide ongoing technical support to the EPP Project.

Sector Review. The Sector Review was characterized by close working relations between the IEES team and counterparts designated by the Sector Review Steering Committee (composed of the Head of Balitbang Dikbud and of the Directors General of the MOEC departments).

The Sector Review identified, among others, the following constraints to educational development:

1. a policy decision to rapidly expand vocational/technical education programs without a clear linkage to actual manpower needs or careful assessment of resource capabilities,
2. a lack of evaluation research information on the outcomes and cost effectiveness of educational improvement efforts,
3. the need for expansion and quality improvements in the secondary education subsector,
4. the difficulty of recruiting and retaining teachers in the remote areas, and
5. the need for balancing deconcentration of responsibility for educational programs to allow more participation in planning and curriculum development by the regions without loss of central control over key decisionmaking.

In January-February 1986, John Bock, Walter McMahon, and Doran Bernard presented the first draft of the Sector Review to obtain feedback from the Indonesian Steering Committee and counterparts.

Incorporating the substantive feedback from the MOEC personnel, FSU staff completed the editing of the Sector Review and distributed bound, two-volume copies to AID/W for dissemination to the MOEC and other interested donor organizations.

Education Policy and Planning (EPP) Project. The EPP Project Paper (June 1984) describes the million project to be conducted in cooperation with the Ministry of Education and Culture (MOEC) extending over a six-year period (July 1984 - September 1990).

The purpose of the project is to improve the quality of education in Indonesia by increasing the institutional capacity for better policy planning based on more complete and accurate information and better policy analysis. The project strategy has five main elements designed to:

1. increase staff capacity for policy research and analysis,
2. improve the internal management of the Agency for Educational and Cultural Research and Development,
3. conduct studies on key policy issues,
4. assist the Center for Information Systems (Pusat Informatik) in establishing a management information system relevant to policy and planning needs, and
5. support experimentation with planning and information systems at the provincial level.

There is also provision for technical assistance. In-country training consists of short-courses, seminars, and workshops. Participants are drawn from Pusat Informatik, other centers within Balitbang Dikbud, and other agencies at the national and provincial level concerned with collecting and using educational and cultural information. The training is aimed at increasing MOEC capacity to

collect, analyze, and store information, and to better inform policy formulation and long-term planning.

The project is designed in two phases. Phase One is a period of experimentation and exploration of alternatives in the establishment of an information system. Phase Two is a period of implementation of the agreed-upon plan. Overall responsibility for project management and implementation will be exercised by a Project Steering Committee established by ministerial decree and consisting of representatives of the major units within the MOEC.

During the previous report period, the EPP Project completed its first annual Action Plan, which has been approved by the Indonesian EPP Steering Committee. The three long-term technical advisors for the EPP Project--Nat Colletta (Chief of Party), Simon Ju, and Jay Salkin--have arrived in Jakarta. Simon Ju and Jay Salkin have completed Bahasa Indonesian language training.

As part of the EPP First Annual Action Plan, Hak Kwong Yip assisted IKIP Yogyakarta and Balitbang Dikbud to develop training materials for data-based planning, programming, monitoring, and evaluation of educational activities for both the MOEC and provincial staff. He worked with the IKIP Yogyakarta and Balitbang Dikbud staff to refine the proposed curriculum and produce a series of training modules. Supportive materials for the training, such as library resources, audio-visual aids, and computer software, were also identified. Yip spent two weeks in Indonesia assessing user needs, four weeks in Hong Kong producing a detailed module, and a final two weeks in Indonesia guiding pilot testing and revisions. Before his final visit, the modules were sent to Indonesia and translated into Indonesian in preparation for the pilot test.

IEES fielded Michael Hendricks on June 2, 1986, to evaluate Repelita IV, Indonesia's Five-Year Plan. Hendricks completed this assignment by September 1, 1986. Also, at the request of the AID Mission, IEES fielded Doran Bernard on June 15, 1986,

to develop the monitoring and evaluation design for the EPP Project. Full scopes for their work are in the following section.

1.3.2 Accomplishments During Report Period

The EPP Project is now well into the first phase of implementation with a number of activities having been launched in the areas of management information system development, policy studies, and related institutional and manpower development. These activities are discussed and summarized in this report, indicating progress against the targets and expected outcomes as stated in the first-year EPP detailed workplan.

The EPP Project phase I implementation can be characterized as a successful start-up period in which a number of experimental efforts were initiated at both the provincial and national levels. Computers are now in place and operating in all three pilot provincial education offices and a model network has been established at the national level linking desktop PCs and the larger IBM 36 in an interactive mode. Two short-term policy studies in monitoring and evaluation have provided initial results and three longer-term policy studies on educational quality, efficiency, and relevance to the labor market are under design. Technology transfer is being realized through on-the-job training and organized short courses focusing on the use and application of computers for database formation, educational planning, management and research.

By early 1987 the project will be able to consolidate the lessons of these phase I efforts to generate a model and plan of implementation for an MOEC integrated management information system. At that time, the longer-term policy research design stage should have been completed and the studies should be under implementation as well.

Despite the many accomplishments on the technical front, the project is still in the process of clarifying its overall objectives regarding institutional

development. This process of specifying the role of EPP is still ongoing with Indonesian counterparts and will ultimately determine whether it is developing a set of discrete technical products, e.g., developing and introducing software, designing and conducting policy research, as ends in themselves, or integrating these technical developments to sustain the technology transfer.

EPP must also determine whether the current Indonesian environment is amenable to broader institutional development. If this is determined not to be the case, it then must be decided what meaning can be assigned to the EPP objectives. The current process of EPP work should determine if these objectives will be modified to reflect the host environmental realities. EMIS development by individual DGs at the national level might be encouraged to proceed independently, while the focus of the EPP is on Balitbang Informatique development. Alternatively, the EPP technical advisory and steering committee might be activated with greater intensity and frequency to discuss and resolve issues of coordinated and integrated EMIS development. The project's institutional development strategy is also being clarified. The strategy is now being reviewed to determine if it is moving too slow, too fast, and in the right or wrong directions. Also under review is the need for guidance from the steering committee on the whole question of strategic institutional development.

As indicated above, the project has successfully initiated a wide range of activities. However, it is now appropriate to review how the outcomes of these activities will affect and improve the administrative conditions and performance of the Ministry; and how EPP Project activities could be assimilated to the Ministry's working stream. This ongoing review process will ensure that EPP project activities will result in significant impact on the improvement of the Indonesian educational system.

At its inception, the EPP Project implicitly understood that the EPP Steering Committee and its technical working committee would play two key roles: (1) project guidance and; (2) institutionalization of the outcomes of project activities. The purposes of these two committees are now being reviewed in order to activate them toward the roles originally conceived.

Policy Research. Two special Policy Research studies were carried out by IEES in cooperation with the EPP Project during the previous report period. A three-month consultancy to assist with the evaluation of Repelita IV provided methodological approaches, data requirements and illustrations for evaluating the whole education sector in Repelita IV. Additional work is anticipated to further develop and implement the proposed evaluation methodologies. A two-month consultancy to assess current project monitoring needs and practices, and to develop an improved system was completed with implementation to be undertaken by the Sekjen (Secretary General of MOEC). Balitbang will continue to provide technical support to the Sekjen.

The EPP Project assisted several UNDP consultancies for Policy Research Training on economics of education and the selection of a national sampling frame.

EPP Project staff held consultations, reviewed policy research literature, models and data, assessed the status of policy research and the policymaking process, and investigated the information systems and software used for policy research.

To facilitate the inventory of key policy issues, the identification of the research gaps and the eventual specification of the research agenda, a database model for policy research was developed and tested and some basic data was input. A brief paper describing this database is being prepared.

Discussions were also held to facilitate the initiation of three additional longer-term research studies in the area of educational quality, internal

efficiency, and external efficiency. An organizational strategy was developed and the principal investigators, core teams, field coordinators, and research networks were identified.

Management Information System. One of the priority tasks in the early stage of the EPP Project was to establish a viable information technology capacity in the selected Department offices including three pilot provinces (Jawa Barat, Sulawesi Selatan and Nusa Tenggara) to realize technology transfer in an efficient and speedy manner. For this purpose, IBM PCs were purchased and allocated to the selected offices and a training program was initiated to secure required technical personnel in each office. At the same time, an appropriate management scheme was established and introduced to the three provincial offices to effect the management information system (MIS) as an institutional developmental effort. Specifically, three functional entities have been established: The MIS Management Group as the Policy and Planning Unit of Provincial MIS at the national level, the MIS Task Group as the actual working unit in each province, and the Software Development Groups in the Pusat Informatik whose activities are to develop software required by the provinces for allocation and also provide appropriate technical assistance and on-the-job training.

During this reporting period an intensive evaluation study was conducted on the current project monitoring practices in the Ministry. Until now, Project monitoring has always been problematic because of the lack of organizational coordination, tardiness of reporting, inefficient data/information plan, and weak data processing capabilities. The study, after analyzing the current situation, makes specific recommendations as to how to improve the project monitoring activities in the ministry. The recommendations cover a wide range of improvement scheme including institutional development/innovation to development of a

computerized monitoring system. The office of the Secretary General has been designated to follow up the recommendations.

Computerization of the entire annual educational statistics has been initiated. The statistics include Basic Education, Secondary Education, Higher Education, Nonformal Education and Culture. The system aims to integrate all the sectional statistics into a comprehensive functional system. Once completed, the system will not only facilitate production of standard educational statistics, but also help researchers and planners for exploiting various facets of information which were not readily available before.

A notable technical achievement during this reporting period is the establishment of a local area network (LAN) with three COMPAQ Computers and two printers in the Project Consultancy Working area. Furthermore, the network is linked up with the IBM System 36, which is currently the host machine for the Pusat Informatik, and provides immense technical versatility in file and record handling and transfer. More importantly, it presents a viable means of sharing computer resources among computer users, that may be considered as a prototype for further computer installation in the Department.

A Task Analysis was conducted for the three Pilot Provinces. The analysis, which was conducted in collaboration with IKIP Jogjakarta, yielded many valuable information not only for the development of the training module, which was actually the original purpose of the analysis, but also for the project team to understand the management aspects of the Province Offices.

The concept paper for the Operations Room of the Minister was prepared. The room is a strategic chamber where the executive level ministerial staff will deliberate major educational issues, supported by information technology which is to provide flexible means of composing and accessing information.

A computer resources survey questionnaire for the Pusat Informatik was designed. The survey, which covers all computer-related resources including hardware, software, technical manpower, once conducted will reveal valuable information about the current status of computer-related resources under the jurisdiction of the Minister.

Training. IKIP Jogjakarta has conducted several basic courses in d-Base III and Lotus 1-2-3. Five candidates have departed for degree study in the U.S. Two students are now pursuing degrees under the project and one has returned. Several candidates are currently undergoing English language training in Jakarta prior to their degree studies.

EPP Training Modules Developed. IEES consultant Yip Hak Kwong completed a second consultancy in Indonesia August 25-September 6, 1986, in order to pilot-test and revise four training modules on the construction and use of an Education Management Information System for reporting, management control, and planning. These modules were developed based on advice obtained from Indonesian counterparts in Balitbang Dikbud and the EPP Project during Yip's first consultancy June-July 1986. During the second consultancy, the training modules were presented to trainers from Balitbang Dikbud and IKIP Yogyakarta and were subsequently revised based on the feedback received from these organizations. The four training modules completed are:

1. Basic Concepts and Computer Applications to Educational Planning, Management, and Research;
2. Construction of the Education Management Information System (EMIS);
3. Use of the EMIS for Management Control; and
4. Use of the EMIS for Planning.

While developing these training modules, Yip worked closely with Boediono and Ace of Balitbang Dikbud and Nat Colletta and Simon Ju of EPP. A fifth module has

been discussed, but plans have not been made at this time to produce this module, which would deal with the use of EMIS for research.

Reaction to these materials from Indonesian officials has been very favorable. The modules have now been translated into Bahasa Indonesia for presentation in the three pilot provinces of EPP.

IEES Central Activities. As the project moved into the third year of the IEES Project, Michael Hendricks completed the development of a model for the evaluation of Repelita IV, Indonesia's Fourth Five-Year Plan. This work is a direct follow-through of recommendations made in the Sector Review and provides input into Repelita V, the Fifth Five-Year Plan. The results of this work will also directly complement activities of the Educational Policy and Planning (EPP) Project. This activity was completed in September 1986.

Doran Bernard of FSU provided assistance in the design of monitoring systems for development projects of the Ministry of Education and Culture (MOEC) in coordination with the Education Policy and Planning (EPP) Project from June 15 - August 14, 1986. The need for this consultancy grew out of the following considerations: (a) a central recommendation of the Sector Review was that the MOEC begin immediately to develop better mechanisms for monitoring innovative programs as well as ongoing development activities, and (b) both IEES and the EPP Projects have as a primary objective the improvement of policymaking and planning activities at the ministerial level. With Indonesia's sophistication and complexity of logistical, communication and geographical constraints, Indonesia could prove a very relevant example for successful development of project monitoring and management information systems in other countries; results of this monitoring system development may also relate closely to the management information systems component of the IEES research initiative. A follow-up review for further refinements or adjustment is tentatively scheduled also from May 4-23, 1987, pending approval.

Country Implementation Plan for IEES Activities Developed. IEES Project Director Jack Bock, of FSU and Walter McMahon of the University of Illinois collaborated with Indonesian counterparts September 21-October 15, 1986, to develop the Indonesian Country Implementation Plan for IEES Activities. The development of the plan was derived from the recommendations and initial impact of the Indonesian Education and Human Resources Sector Review which was conducted by IEES in 1985. The sector review, published in draft form in April 1986, has been widely distributed and is used by key decisionmakers in the Ministries of Finance, Planning, and Manpower and Labor, where the review is now serving as a vehicle for policy planning.

The Country Implementation Plan builds upon the sector review's broad distribution and use. The activities specified in the plan are derived from the recommendations of the review. They have been extended and refined as a result of close collaboration with Indonesian counterparts and the USAID Mission in Jakarta. The first draft of the plan developed in-country by Bock and McMahon has been tentatively approved by Balitbang Dikbud and USAID. Balitbang Dikbud (Office of Educational and Cultural Research and Development) has worked closely with IEES as the critical point of contact with the education and human resources sector in Indonesia. It has provided strong support throughout the sector review process and during the development of the Country Implementation Plan.

Balitbang Dikbud and the USAID Mission have directed that the plan should outline "a continuing policy planning capacity within the Ministry of Education." To accomplish this goal, the plan will utilize a variety of possible funding sources beyond the available IEES funds. This broadened scope offers many opportunities for interministerial, intraministerial, and donor agency collaboration and cost sharing. Such an approach is the basis of IEES strategy for

improving educational efficiency and should thus demonstrate the impact which might be achieved with such planning.

The following is a summary of the activities accomplished in this report period.

1. Repelita IV Evaluation, June 2-September 13, 1986
Development of evaluation model for Repelita IV to: (a) define the key questions that will be addressed in the evaluation; (b) develop an evaluation methodology; (c) prepare and implement a data collection plan to obtain three types of data: secondary data, sample data that can be aggregated, and case studies of critical issues; (d) prepare and implement a data analysis plan indicating which data sources will be used in which methodological approaches to provide answers to each of the evaluation questions; and (e) prepare a report on evaluation of Repelita IV, surveying items a-d above. The report provided answers to evaluation questions specified and agreed upon by the reference group and indicated channels for disseminating various evaluation answers.
2. Monitoring System Review, June 6-August 14, 1986
Evaluated the current status of project monitoring activities, developed a viable monitoring system to address their shortcomings, and prepared an implementation plan including schedule, organizational responsibilities, and resource and training requirements. Specific tasks included: (a) a review of presidential and ministerial decrees regarding project reporting and to make appropriate recommendations to improve the reporting procedures, formats, and content; (b) a review of the information flow and organizational responsibilities for the monitoring activities in the MOEC in terms of their efficiency and effectiveness to make appropriate recommendations, particularly stressing the end use of monitoring data for improving project implementation; (c) developed key criteria and indicators to measure the project status in a timely manner in terms of the project schedule and progress, logistics, and quality, as well as relevant financial information; (d) defined the administrative procedures and an implementation plan for incorporating the recommended monitoring mechanisms in the current administrative environment; (e) designed a model for a computerized project monitoring support system; (f) identified logistics and financial resources required to develop the improved project monitoring system, including identifying additional manpower and/or training requirements; and (g) prepared a final report covering the items a-f above to be submitted for review by the technical committee of the educational policy and planning project.
3. IEES Country Implementation Plan Development, Sept. 9-Oct. 10, 1986
Developed a detailed outline of IEES activities to be carried out in Indonesia over the remaining life of the IEES Project. The Country Implementation Plan was a collaborative effort between IEES consultants Bock and McMahon and the MOEC.

1.3.3 Projected Activities

The following section contains a summary of projected activities for both the EPP Project and other IEES activities in Indonesia. As the Country Implementation Plan has not yet been approved by either Indonesia or IEES Project management, these are only tentative suggestions for projected activities.

1.3.3.1 Projected EPP Activities

1. Reorganization and/or Functional Realignment of Pusat Informatik. The Pusat Informatik will be reorganized to initiate functional management of EMIS in the Pusat Informatik. This will entail the following activities: 1.1 Review the current function of Pusat Informatik; 1.2 Review the current staff resources; 1.3 Formalize the proposed organization structure and functions; and 1.4 Determine staff allocation, recruitment, and required training.
2. Formalization of Major Data Coding System of the Ministry, including Institutions, Education and Occupation Codes. All the Data Codes in the Ministry will be standardized and unified and administrative procedures for maintaining them will be established. A comprehensive code manual will be issued on a regular basis. In order to accomplish this activity, the following sub-activities will be carried out: 2.1 An ad hoc inter-agency working group will be established; 2.2 All codes being used in the Ministry will be reviewed; 2.3 The code system will be standardized; 2.4 Formal procedures for maintaining and updating the code system will be established; 2.5 A decree on the code system will be issued; and 2.6 The relevant computer files in the Central Database will be created.
3. Enhancement of the Annual Educational Statistics Database Structure, Statistical Tables, Information Display and Dissemination. This activity will improve the information utility of the Annual Education Statistics. For this major activity, the following sub-activities are envisioned:
 - 3.1 Integrate all the data sets in a functionally efficient manner;
 - 3.2 Create an appropriate data dictionary for the system;
 - 3.3 Associate statistics data with educational indicators;
 - 3.4 Display statistics in a graphic mode;
 - 3.5 Entry for past year's data as far back as possible; and
 - 3.6 Develop a data/information access scheme for all DGs.
4. Review Current Data Collection Instruments; Revision as Appropriate (Annual Statistics). The purpose of this activity is to ensure that at least the annual statistics will also be available to Ministry's information clientele on a more timely basis. To accomplish this, the following sub-activities will be undertaken: 4.1 Review the annual statistical forms (Primary, Secondary, Higher Education, Nonformal and Culture) in view of their data utility and relevancy; 4.2 Review the associated data collection flows; and 4.3 Implement new data collection methods and instruments, as appropriate.

5. Development of EMIS Policies relating to EMIS Management: Including Hardware/Software Acquisition and Data/Information Management. For this activity, EMIS policies for hardware/software acquisition and information/data management will be issued under the Minister's decree. The sub-activities for this will include: 5.1 Develop the hardware/software acquisition policy; 5.2 Develop the policy on data collection maintenance, access and usage; 5.3 Develop the EMIS plan requirements for Echelon I offices and the province offices; and 5.4 Implement the policy by Minister's decree.
6. Preliminary Central Base Design and Development. All the data items to be resident in the Central Database will be identified; and then the data base structure will be constructed. This will entail: 6.1 Organizing the education statistics data for 10 years; 6.2 Selecting and organizing the annual planning data; 6.3 Selecting and organizing the finance and personal data; 6.4 Selecting and organizing the Project Monitoring data; 6.5 Organizing all the reference data; and 6.6 Organizing all the above data sets under a suitable database management system (DBMS).
7. Production of Annual Data Plan. An annual EMIS plan from Echelon I offices, regional EMIS centers and every province will be formalized. To achieve this will entail 7.1 Collecting all regular data collection forms in the Ministry; and 7.2 Compiling them into a volume to be called the "Annual Data Plan."
8. Development of an Appropriate Educational Indicator System for the Ministry. This will entail the production of education indicators as the key measures for diagnosing the educational status of the system. Key indicators will be produced and distributed to top executive level officers in the Ministry regularly. For this major activity, the following sub-activities will be carried out: 8.1 Review the currently existing educational indicators; 8.2 Develop or adopt an appropriate set of indicators to enable the measurement of the status of the educational system; 8.3 Design an Education Indicators Bulletin and plan the procedures and methods for its dissemination; 8.4 Develop an educational policy assessment and formulation model which uses educational indicators as inputs; and 8.5 Prepare a model development plan.
9. Production and Maintenance of the Data Dictionary. All the key data items in the central database will be compiled into a data dictionary under a given format and updated continually to ensure its validity. Under this major activity, the following sub-activities may be noted: 9.1 Review all the data items collected or used in the Ministry; 9.2 Organize them into an appropriate data dictionary format; and 9.3 Develop the maintenance procedure of the data dictionary.
10. Establishment of Data/Information Exchange Channels and Mechanisms with Other Relevant data acquisition from other agencies such as the Bureau of Statistics and the Ministry of Labour will be formalized. This will entail: 10.1 Improving the data/information exchange mechanisms; 10.2 Providing direct data access privileges to outside agencies, as appropriate; and 10.3 Establishing a formal data exchange scheme.

- Selection and Installation of the New Central Database Machine. The new central data computer will be installed and made operational. A detailed schedule for the acquisition and installation of the central data computer has been prepared.
- 12. Establishment of the Computer Network and Data Communications. For this activity, computer communication links will be established, as needs arise. As part of this activity, 12.1 the central database computer and other minicomputers in the Ministry will be linked, as necessary; 12.2 an effective LAN for microcomputers clusters in the Ministry will be established; 12.3 data/information exchange scheme among microcomputer users will be developed; and 12.4 an international data communications link through Indosat will be established.
- 13. Establishment of Regional EMIS/Centers and Composition of Province Working Consortiums. As proposed, five working consortiums will be established under the name of "Region." Subsequently, regional representatives will be appointed and appropriate functions will be specified. For this major activity, the following sub-activities are identified: 13.1 Establish working consortiums within the associated provinces; and 13.3 Establish a working relationship between Pusat Informatik and the provinces.
- 14. Allocation of Micro- or Mini-computers to Province Offices as Appropriate. All 27 provinces will possess at least two microcomputers and the additional 24 provinces will initiate their EMIS operations under the guidance of the regional EMIS Centers and the Pusat Informatik. This will entail acquiring and providing two microcomputers to the remaining 24 (non-EPP Pilot sites) provinces.
- 15. Technical Support for the Operations of Satellite Systems in the Ministry. Pusat Informatik will provide technical assistance to EMIS operations of the Echelon I offices for their system development efforts. This will involve 15.1 conducting a feasibility study to identify the computerization requirements of each office of the Unit Utamas, and 15.2 establishing a system development plan to accommodate those requirements, as appropriate.
- 16. Identification of Required Technical Resources and Conduct Appropriate Technical Training. This activity will entail improving the technical manpower supply available to support the EMIS. Included here are the sub-activities: 16.1 Computer operations training for the new central database computer; 16.2 Systems analysis and programming skill training for SLG; 16.3 Regional and provincial level staff training for EMIS management and technology; 16.4 Technical training for the user groups of the Pusat offices; 16.5 Special software training; and 16.6 On-the-job training.
- 17. Development/Strengthening of EMIS Infrastructure in the Regional Offices. The current EMIS working team will evolve into a formal unit for handling EMIS requirements in the provincial offices; and each members' role will be specified. This will entail the following sub-activities: 17.1 Organize EMIS units in the regions, as appropriate; 17.2 Identify required functional alignments; and 17.3 Secure required technical resources through training and recruitments.

18. Development/Establishment of Provincial Databases. All the data items required for the provincial database will be identified, collected and computerized. This activity will entail: 18.1 Identifying priority functional areas in administration; 18.2 Identifying relevant data requirements; 18.3 Developing an effective database in the province computers; and 18.4 Implementing the EMIS training modules developed by the EPP Project.
19. Establishment of Management and Operation's Schedule for the Minister's Operations Room. The functioning of the Operations Room will be officially initiated with ample technical capabilities and tools. For this activity, 19.1 a management scheme and strategies for the Operations Room, including staff allocation and their functions will be established; and also, 19.2 information tools, including education indicators, projection models, resource allocation models and simulation models, will be identified and developed.
20. Additional Allocation of Microcomputers for the Headquarter's Offices in the Ministry. As funding permits, all the offices of Echelon II and above (estimated 30 units) will be allocated with a microcomputer and with an appropriate staff training program. For this activity, the following sub-activities can be noted: 20.1 Study the microcomputer requirements of the offices of Echelon I and above; and 20.2 Allocate microcomputers with appropriate capacity and peripherals.

1.3.3.2 Projected IEES Activities

The objectives and activities described below were selected on the basis of their convergence with the IEES objectives of increasing the efficiency of human resource utilization through databased decisionmaking and improving the quality of education through enhanced institutional capacity for medium- and long-range planning. These objectives are consistent with those of the Government of Indonesia (GOI), particularly since the current drop in oil revenues has heightened the sensitivity of Indonesian policymakers to the need for greater efficiency in the utilization of educational resources if they are to realize their Repelita IV goals of growth with equity. These Country Implementation Plan activities have emerged as the distillation of the research and policy recommendations outlined in the Indonesian Sector Review. In fact, every activity scheduled was first identified in the Sector Review as relating to the improvement of efficiency and

quality of education through the development of a sustained planning capability within the MOEC.

In brief, there is a high degree of agreement between, IEES, GOI, MOEC and AID/Indonesian goals and priorities. There is also conceptual integration along those themes which provide the connective tissue for IEES activities (external efficiency, internal efficiency, quality and financing). The Sector Review was utilized as the key data base for the initial selection of these activities and perhaps most important, all of these criteria converge upon the specific operational needs of the MOEC.

The activities described below were selected, prioritized (both in overall importance and as to a timeline), and designed after numerous and extended conversation with the key decisionmakers in the several human resource-relevant ministries and with USAID/Indonesia. These objectives and their supporting activities can provide three important benefits:

1. generation of necessary knowledge about allocation and utilization of constrained education resources,
2. development of the planning capacity to sustain and apply this new knowledge, and
3. provide immediate, practical products which can feed into the current preparation of the Fifth Five-Year Plan (Repelita V).

The proposed objectives, with the Roman numeral ordering reflecting both their timing and logical flow (the former as indicated by Balitbang Dikbud, the Secretary General, and by BAPPENAS), and with the relative importance to Balitbang Dikbud (irrespective of timing) shown in parentheses after each topic, are as follows:

A. Planning Capacity Building Objectives

To Improve the External Efficiency of Education:

- Objective I. To Identify Investment Strategies for Increased Efficiency: The Issue of Vocational/Technical Education Relative to Other Growth-Oriented Opportunities (Priority 3a).
- Objective II. To Conduct a Policy Study on the Cost and Quality of Vocational/Technical Education (Priority 3b).
- Objective III. To Design A Medium Term Manpower Plan for MOEC (Priority 1).

To Improve Internal Efficiency and Quality:

- Objective IV. To Identify Teacher Incentives to Improve Quality, Serve in Science Fields, and Serve in More Remote Areas (Priority 4).

To Identify Financing Sources in Support of Efficiency and Equity:

- Objective V. To Identify Community and Private Financing Sources for Efficiency and Equity in Education (Priority 2).

These five Category A objectives are interrelated in that the implications for greater efficiency of the system (Objective I) drives to some extent the internal MOEC Manpower Plan (Objective III). Both of these need to be underway and in first draft form with preliminary results by January 30, 1987, with a second draft usable product by June 30, 1987, if they are to be a usable contribution by Balitbang Dikbud and the Secretary General to MOEC and hence to BAPPENAS for the next Five-Year Plan.

Work on the financing changes needed for greater efficiency and equity in the educational system (Objective V) is necessary for the support of the work on teacher incentives and the quality of teaching in underserved areas (Objective IV). It is also supportive of external efficiencies that imply various relative rates of expansion and of the financing necessary to implementation of the Five-Year MOEC Manpower Plan, all of which can go astray if the financing incentives merely

generate inefficiencies, waste, and inequity. Central to all four of these objectives, and their supporting activities, is their contribution to the development of a continuing planning capacity within the MOEC.

The following Category B activities are designed to provide the technical and institutional support for the development of a sustained planning capacity within the MOEC. They have a less critical timing dimension and are somewhat less interdependent than the Category A activities. But they are high priority to the MOEC, especially Balitbang Dikbud, and each can make important contributions to the support of a more efficient and effective planning agency.

B. Technical and Institutional Support Activities

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|-----------------|---|
| Objective VI. | To Analyze Available EBTANAS Data (needed for Repelita V); To Develop Family Financial Statements; and To Develop Processing Systems for Both (Priority 5). |
| Objective VII. | To Conduct a Nationwide Computer Literacy Feasibility Study (Priority 6). |
| Objective VIII. | To Improve the Computer Software Model Development Capacities and Training Programs in Balitbang (Priority 7). |
| Objective IX. | To Improve the Education Research and English Reading Skill Systems (ERIC and LCS) (Priority 8). |
| Objective X. | To Improve Internal Management Efficiency (Priority 9). |

The IEES Country Implementation Plan for Indonesia, as discussed above, was developed by Bock and McMahon in collaboration with Indonesian officials and USAID Mission personnel in September and October 1986. At the time of this report the April 1986 draft of this plan is still undergoing revision. Further specification of activities will be provided in the IEES Annual Plan for Project Year Four, which will be completed in June 1987.

1.3.4 Constraints Encountered and Anticipated

The increased reductions in the Repelita development budget relative to education plans continues to constrain planning of activities in the education sector in Indonesia. Even greater reductions than anticipated were required during this reporting period. These reductions have dramatically demonstrated that basic IEES strategies of careful reallocation of available resources and improved donor coordination for maximizing assistance are critical to the education sector. The problem of unabsorbed external assistance funds (SIAP) has greatly lessened in Indonesia due to the increased budget reductions. As other categories of budget reductions are increased, SIAP effects correspondingly lessen.

A constraint to both EPP and central IEES activities continues to be the lack of clarity in identifying where responsibility lies for both medium- and long-range planning in the education sector. The lack of specification of responsibility in this area between the Secretary General of the Ministry of Education and Culture and Pusat Informatik not only hinders the formulation of strategy for effecting change, but also presents problems for the day-to-day operation of activities. It will be to the advantage both of the Ministry and IEES (and particularly EPP) to have this responsibility clearly defined.

1.3.5 Conclusions and Implications for the Future

The six months of this report period, the first half of the IEES Third Project Year, have been extremely productive in Indonesia. This productivity has been largely the result of the close coordination maintained with both Indonesian counterparts and USAID Mission personnel. While the insistence on maintaining such coordination has at times slowed some processes and perhaps complicated others, it has proven to be the most effective approach for ensuring maximum utilization of resources and lasting commitments to activities.

The completion and dissemination of the Indonesian version of the Sector Review has continued to widen the impact of that IEES study. An Indonesian version of the study was created in order to provide a basic reference manual for decisionmakers and planners throughout key ministries, and to provide an accessible base for data-driven policy formulation at the most senior levels of the MOEC. The Indonesian version has now involved key decisionmakers in the debate of the issues and recommendations of that study. The study is both widely discussed and used as a policy vehicle with great potential impact on improving the efficiency of education in Indonesia. The Sector Review also resulted in the development of a collaborative relationship with an UNDP effort to identify, prioritize, and analyze the information to produce a research agenda for the EHR Sector. This collaboration provided a basis for selecting IEES activities during the development of the Country Implementation Plan and will lead to further coordinated activities.

This report period saw the completion of a significant step in the IEES strategy of assisting developing nations, the Country Implementation Plan for IEES Activities. This plan flows from the recommendations of the Sector Review and lays out a plan of activities for utilizing scarce resources for achieving maximum effect in the education sector. The collaboratively-developed plan for Indonesia achieves even more effective utilization of resources as it was extended, at the request of government, to include planning for resources beyond those available through IEES. This plan, which is now being finalized by Project Director John Bock of FSU, will thus demonstrate how effectively the IEES strategy can work to improve educational efficiency.

This report period was also distinguished by the acceleration of EPP activities. All EPP team members assumed their full responsibilities following their training in Bahasa Indonesian and a complete annual workplan was developed for the project.

The next six months will be a period of implementation of the activities described in the Country Implementation Plan through continued coordination with both counterparts, particularly BAPPANES and the Ministry of Finance, and USAID Mission. For EPP, after the inevitable startup period, it will be a time of rapid expansion of activities, both in pace and scope. The EPP achievements of this report period will be solidified and will form the basis of continuing support in the education sector.

1.4 ACTIVITIES IN LIBERIA

1.4.1 Background

Activities in Liberia preceding the IEES contract included a sector assessment which was funded by AID S&T/ED through the Graduate School of the United States Department of Agriculture. All work after June 10, 1984, was funded centrally within the IEES Project. The activities prior to the current reporting period have included the sector assessment, assistance with project design, a test development workshop, and partial support for a policy conference.

The first sector assessment of the type formulated and implemented within the IEES Project was conducted in Liberia September - November 1982, and published in June 1983. This assessment was coordinated by the Ministry of Planning and Economic Affairs and prepared by USAID-sponsored specialists working with a team of professional staff from the concerned ministries and institutions.

Consultants fielded by the IEES Project assisted USAID/Liberia with the design of the second phase of the Improved Efficiency of Learning (IEL) Project. The first phase of this project encompassed development and evaluation of a low-cost programmed instruction approach to primary education. Independent evaluations of this project concurred that this approach can make a significant contribution to primary education in Liberia. The second phase (IEL II) will extend the experimentally validated program by stages to additional numbers of schools and will strengthen the ability of the Ministry of Education (MOE) to gradually expand and refine this technology on a system-wide basis.

The IEES Project provided specialist services in June 1984 for a workshop to train Liberian educators to prepare criterion referenced tests for assessing achievement under the initial IEL Project, and to construct a sampling plan to guide the administration of these tests.

As a consequence of the policy questions highlighted by the sector assessment, the Liberian Government organized a National Policy Conference on Education and Training. This was held at Cuttington University College, Suacoco, Bong County, from July 30 to August 3, 1984. Victor Cieutat represented the IEES Project at this Conference, which was attended by leading Liberian educators.

The IEES Consortium, through its work on the sector assessment and subsequent consultancies, has encouraged the Liberian Government to focus on many significant policy issues in the education sector. The agenda of the National Policy Conference on Education and Training, for example, was influenced by many of the policy questions identified in the sector assessment. This conference was given even more urgency and importance by indications from the World Bank that the topics on its agenda needed to be carefully examined before discussion of the basic objectives of the Fifth Education Project proceeded.

1.4.2 Accomplishments During Report Period

Two activities have occurred in Liberia under the IEES Project during this report period, following a long period of inactivity. Albert Coleman, Director of Teacher Education in the Ministry of Education, attended the First Annual World Conference on Technology and Education and the Integration Study of IEL II and World Bank Textbook Projects was conducted. Each of these is described in more detail immediately below.

World Conference on Technology in Education. On July 15, 1986, USAID/Monrovia asked if funds were available to allow Albert Coleman to attend the First Annual World Conference on Technology and Education to be held in Manila, the Philippines. On July 19, S&T/ED responded that it would be appropriate for funds from the IEES Project to be used as attendance at the conference would support the integration study of instructional materials, other IEES efforts under discussion, and eventual implementation of the IEL II Project. IIR handled the travel arrangements.

Coleman departed Liberia on July 25 and returned via Washington, D.C. in the first week of August. The stopover in Washington provided an opportunity for Coleman to discuss the conference with representatives from the IEES Consortium and S&T/ED.

Integration Study of IEL II and World Bank Textbook Projects. This study was requested by the MOE and examined ways of integrating the IEL II Project and the textbook component of the Fourth Education Project, sponsored by the Government of Liberia and the World Bank. It assessed the efficacy of various approaches to providing instructional materials in Liberia and provided critical information for informed planning decisions. A six-week study was requested, beginning in the last half of August and extending through September.

The Mission's detailed scope of work called for a study to examine and, if feasible, to plan and integrate the Ministry of Education's current system of primary instruction (Improved Efficiency of Learning system, the textbook system, and the traditional system) into a unified instructional program. It specified the need for an instructional systems designer, an educational economist, a curriculum specialist, and two locally-based Liberian professionals.

In early October, it was agreed that the study would be conducted between October 14 and November 21. The following individuals comprised the team which was fielded by FSU.

Robert Morgan, Education Systems Analyst and Team Leader, November 3-21

Clifton Chadwick, Instructional Systems Designer and Deputy Team Leader,
October 14 - November 21

Richard Kraft, Educational Economist, October 14 - November 14

Milton Adams, Curriculum Specialist, October 14 - November 14

D. Musuleng Cooper, Ministry of Education, Monrovia, Liberia,
October 14 - November 21

David K. Vinton, Ministry of Education Monrovia, Liberia,
October 14 - November 21

Albert Coleman was selected as Country Team Leader for Liberia's participation in the IEES Policy Research Initiative. Coleman's work with the Teacher Incentive Systems research is described in Section 2.3 of this report.

1.4.3 Projected Activities

In light of the agreements that were reached at the November 1985 First IEES International Workshop at Botswana and in subsequent discussions, as well as the eagerness of the MOE to participate in and contribute to the IEES Project, three activities are anticipated for the period from December 11, 1986 to June 10, 1987.

These are:

1. participation in the Second IEES International Conference,
2. a Sector Assessment Update, and
3. Five-Year Plan Assistance.

Each of these is briefly described below.

- Participation in the Second IEES International Conference. Two Liberians have been invited to participate in the Second IEES International Conference: E. Othello Gongar, Minister of Education, who serves as a member of the project's International Steering Committee, and Albert Coleman, Director of Teacher Training, who is responsible for the IEES Policy Research Initiative activities in the country. The conference, titled Policy Research and Educational Efficiency, will be held in Denpasar, Indonesia from February 15-21, 1987.
- Sector Assessment Update. Given the time that has elapsed since the assessment, the severe economic crisis in Liberia, the improvements within the MOE associated with the Third Education Project, and the anticipated approval of IEL II, an update of the original assessment is desired by the MOE as soon as possible. At the same time as the Mission requested assistance with the integration study, it asked for IEES support and nomination of a team to conduct a sector assessment update early in 1987.
- Five-Year Plan Assistance. The MOE is required to contribute to the Government's Five-Year Plan for the period beginning January 1988. The IEL/WB integration study conducted during the report period and the sector assessment study to be conducted early in 1987 will provide essential data for this activity. Furthermore, IEES participation in this activity will provide an opportunity to contribute to and support the Government of Liberia's goals and objectives for the education sector. It is anticipated that a subset of the sector assessment update team will participate in this activity.

1.4.4 Constraints Encountered and Anticipated

The readiness of the Mission to work with the IEES Project means that a former constraint to effective IEES work in Liberia has been removed. The constraint of the severe and enduring economic crisis remains and is discussed below in Section 1.4.5. A possible constraint to effective work in the education sector could emerge as a result of the integration study. If an acceptable and rational resolution of the perceived conflict between the different approaches to primary education cannot be found, there will have to be special efforts by USAID and the World Bank to coordinate and work together through the Government of Liberia so that resources are not wasted in the sector. The success of this study in gaining Government and Mission support indicates that it will result in an efficient integration of the two approaches.

1.4.5 Conclusions and Implications for the Future

Two major issues face IEES activities in Liberia. The first concerns the evolving role of the IEES Project and the second is related to the serious and continuing financial crisis. Activities of the IEES Project are only now being implemented in Liberia, even though IEES Consortium members participated in the sector assessment and the design of the IEL II Project was one of the first project field activities. The successful integration study conducted during this report period suggests that an implementation plan of activities might be established to systematically support government efforts to improve efficiency in the next report period.

The uncertain Mission position with respect to participation in the project has now changed to support for IEES strategies and a request to provide a Sector Assessment Update activity in the next report period. The Mission considers the recommendations of the original Sector Assessment to be no longer valid and looks

to IEES to develop a set of realistic policy alternatives based upon the current economic situation.

The current economic crisis is affecting all development efforts in Liberia. All multilateral and bilateral projects requiring local financial contributions have encountered difficulties in maintaining their operations even when the amounts of Liberian counterpart funds expected were minimal. Disbursements for World Bank projects have been suspended for unusually long periods, and last minute emergency assistance by the U.S. has repeatedly been required to rescue the country from the brink of financial disaster. This economic crisis was further complicated by the November 1985 elections and their aftermath. In such a climate it is difficult to plan effectively and realistically for long-term development projects, and to manage short-term projects undertaken in anticipation of an eventual economic and political stabilization. This situation underlines the relevance of the IEES strategy of maximization of scarce resources and makes better informed analysis and planning a necessity.

1.5 ACTIVITIES IN NEPAL

1.5.1 Background

Since its inception thirty-five years ago, the Government of Nepal (GON) has accomplished the task of creating a national school system in the face of severe geographical and economic constraints. All levels of Nepal's educational system are characterized by growing demand and the need for greater fiscal and administrative efficiency. Managing, staffing, and monitoring the educational system is constrained by:

1. inadequate communications and transportation infrastructures,
2. a shortage of appropriately trained personnel at all levels, and
3. high turnover rates among staff.

Despite increasing numbers of university graduates, the pool of competent mid-level ministry officials, school administrators, and teachers (particularly at the primary level) remains relatively small. The critical challenges now facing the Ministry of Education and Culture (MOEC) are to strengthen its capacity to manage the growth of the system, to plan for its future, and to increase its effectiveness at all levels.

Two IEES teams visited Nepal in 1985 to establish the consortium's initial scope of work. The initial priority areas included: (a) improving the data management and planning capacities of the MOEC Manpower and Statistics Division, and (b) strengthening the evaluation capacity of the Radio Education Teacher Training Project (RETT II). Participation in the IEES Project, along with plans for the first year of collaborating were formally approved by the GON in September 1985. They included the posting of a Resident Technical Adviser (RTA) to oversee implementation of all IEES activity.

Improving the Management Capacity of the Manpower and Statistics Division.

The MOEC Manpower and Statistics Division labors under constraints associated with inadequately trained staff at the central, regional, and district levels.

Particular problems are: (a) headmasters and teachers do not fully understand the necessity of keeping accurate and up-to-date records on student enrollment and attendance, school characteristics, finances, etc.; (b) there is inadequate formal coordination within the Ministry among the units and divisions which collect information on the schools; and (c) there is a lack of necessary equipment to ensure the accurate processing, analysis, and reporting of data in a timely fashion. The poor quality of information which results from these factors serves as a major constraint to planning.

To address these problems, technical assistance was inaugurated by IEES in January 1986. In-country training for six staff members of the Manpower and Statistics Division and ten of their counterparts in the MOEC regional and district offices was begun with the Introductory Information Management Workshop.

The workshop provided hands-on instruction in the design and field-testing of procedures and instruments required to collect, process, and report school data. In the course of the workshop, IEES personnel were able to assess the personnel requirements of the Manpower and Statistics Division and to outline future training priorities. They also produced a draft of a school survey questionnaire which has since been pilot-tested and prepared for national distribution.

Michael Green in May 1986 led the Introductory Microcomputer Workshop for staff of the Manpower and Statistics Division. The focus of this two-week activity was the care and use of computer hardware and software, keyboarding, and basic data entry and retrieval skills. The Introductory Microcomputer Workshop prepared staff for enhanced data management responsibilities and the eventual conversion of many, if not all, of the Ministry's data storage and retrieval procedures to this

technology. The work of the IEES RTA is of critical importance to the success of the conversion effort. It is anticipated that additional computer workshops will be required as work in this area proceeds.

Strengthening the Evaluation Capacities of the Radio Education Division (RED).

Increases in both student enrollments and birth rates indicate that the MOEC will not be able to meet the demand for adequate numbers of trained teachers at the primary level for the foreseeable future. This continuing undersupply of qualified teachers is the rationale behind the MOEC/USAID Radio Education Teacher Training Project (RETT II). Its aim is to enhance inservice teachers' knowledge in core subjects (mathematics, science, Nepali, and English) and, in so doing, to prepare them for the critical School Leavers Certificate (SLC) exam. Radio instruction in the core subjects will be phased in over a four-year period. Thrice-weekly broadcasts in English began on a pilot basis in May 1986. Two hundred teachers concentrated in five of Nepal's seventy-five districts are participating in the program during its pilot year.

IEES involvement in Nepal's Radio Education Division (RED), and specifically in the RETT II evaluation, is based on three objectives:

1. To increase RETT II's potential for success through the provision of additional human and financial resources. One of the weaknesses attributed to previous attempts at radio education in Nepal was the early abandonment of the formative research required to adjust the content and pacing of radio lessons to meet the needs and learning patterns of the target audience.
2. To ensure that appropriate emphasis is placed not only on faithful implementation of RETT II's multi-media learning package, but also on the range of formative and summative evaluation strategies necessary to guide future decisions regarding radio education in Nepal.
3. To prepare a cadre of experienced evaluators within the RED, as well as within related government agencies, capable of training others and of conducting a broad range of program evaluations in radio and other areas in the years ahead.

The design of RETT II calls for a multi-faceted evaluation program to be carried out by two groups: the research unit of the RED and the Research Center for Educational Innovation and Development (CERID). A critical need foreseen by IEES personnel during their planning visits was to devise a unified evaluation plan, one that would prevent RED and CERID researchers from working at cross purposes, and ensure that data would be fed back into the system in timely and helpful ways. To do this, a two-week Evaluation Planning Workshop was conducted by Mayo at RED headquarters in November 1985. During this TDY, an "Integrated Evaluation Plan" was outlined, specifying the variety of instruments which would be administered during RETT II's first year, along with a tentative schedule. This outline was subsequently elaborated by RED and CERID personnel with the assistance of Dibya Man Karmacharya, Lecturer in Education at Tribhuvan University and local IEES consultant since April 1986.

Two studies were added to CERID's portfolio in early 1986. These were an analysis of the ancillary communication channels, which RETT II may eventually add to its existing instructional package to enhance motivation and learning at the local level, and a study of community audiences for the English instruction broadcasts.

To solidify the RED-CERID relationship and address other issues pertaining to the conduct of the RETT II evaluation program in the pilot year, Mayo returned to Nepal in May 1986. During his visit, a special meeting of the RETT II Research Committee was convened. In addition to ratifying the Integrated Evaluation Plan as revised, the committee asked IEES consultant Karmacharya to continue to provide administrative liaison within the project, thereby enhancing the coordination of data gathering and the timely reporting of results. Furthermore, monthly meetings were scheduled for the Research Committee to monitor enactment of the research agenda and, where appropriate, to commission additional studies.

Country Implementation Plan. IEES commitments to Nepal will be strengthened as a result of the country planning effort conducted by Frances Kemmerer of SUNYA and Sivasailam Thiagarajan of IIR in June 1986. Ishwor Upadhyay, Joint Secretary of Education, and members of the IEES International Steering Committee endorsed a plan for IEES to assist the Ministry with a range of additional training, research, and technical assistance activities already funded by the World Bank. An important priority is a school mapping study, a major undertaking to which Butterworth and Karmacharya have already provided technical assistance at the Ministry's request. The IEES Country Implementation Plan activity comes at an ideal time in light of the World Bank project as well as for other opportunities of expanding IEES collaborative assistance.

Initial IEES activities (described above) focused on strengthening the information management capacity of the Manpower and Statistics Section (Planning Division, MOEC) and improving the evaluation capacity of the Radio Education Division (MOEC). To provide continuous support in these areas, IEES appointed Barbara Butterworth as Resident Technical Advisor to Nepal in February 1986. Butterworth's primary assignment is to support, monitor, and direct IEES activities related to building capacity in the Manpower and Statistics section. Her secondary assignment is to provide technical assistance to and oversight of the implementation of the integrated evaluation plan for the Radio Education Teacher Training Program (RETT II).

In April 1986, Dibya Man Karmacharya was hired to facilitate the evaluation of the Radio education evaluation activities and to assist Butterworth in the information management activities. In addition to the provision of these technical advisors, workshops on information management issues, the use of microcomputers, and on evaluation of the Radio Education Teacher Training Program have been given by SUNYA and FSU personnel. The Manpower and Statistics Unit has been supplied

with one microcomputer, one printer, and several software packages. A second microcomputer and printer are currently on order.

1.5.2 Accomplishments During the Report Period

Activities during the report period include the collaborative development of the IEES Country Workplan for Nepal, the implementation of the workplan during the report period, and negotiations for the conduct of an education sector assessment. Nepal's participation in the IEES Policy Research Initiative is detailed in Section 2.3 of this report.

The Nepal Country Workplan identifies the following areas of opportunity for the 1986/87 workplan year:

- MOEC Division of Planning: Here the focus is on improving the data collection, analysis and dissemination system by providing computer training, training for those involved the data collection process and technical support in developing new data collection forms and strategies.
- Radio Education Teacher Training II: IEES supports the design and implementation of formative and summative evaluation activities related to RETT II.
- Cross-National IEES Policy Research Initiative: Nepal will participate in the Education Management Information System Study, along with Yemen and Somalia.

In connection with these three areas of opportunity, the Country Plan identifies eleven activities for the second year of IEES' involvement in Nepal.

These are:

PLANNING

- Central level on-the-job training in data collection and analysis
- Central level out-of-country short-term training in advanced statistics (one person)
- Central level multi-level workshop on data analysis
- District training in data collection and analysis (for supervisors)

EVALUATION

- Implementation of RETT II evaluation design
- Evaluation Workshop II
- Review and revision of RED evaluation activities

RESEARCH

- Participation in the cross-national research project
- Technical assistance to the proposed MOEC/World Bank School Mapping Project

GENERAL

- Assistance in project formulation
- Planning third-year IEES activities

The Development of the IEES Country Implementation Plan for Nepal. As discussed above, Kemmerer and Thiagarajan developed the first IEES Country Implementation Plan for Nepal in June 1986. In the absence of a Sector Assessment, Kemmerer and Thiagarajan were tasked with providing an analysis of the context for IEES activities, as well as detailing June 1986-May 1987 activities and projecting IEES involvement through May of 1988. The plan was approved by the Ministry of Education and Culture, the USAID Mission, and the Executive Management Committee and has been officially disseminated.

The country workplan focuses, as did the initial activities document, on strengthening the information management capacity of the Manpower and Statistics Unit in the Planning Division and improving the evaluation activities related to RETT II. More specifically, the plan called for the following activities during the period covered by this report:

On-the-Job Training in Data Collection and Analysis. Assistance to the Manpower and Statistics Section in acquiring and applying relevant competencies in all areas related to the collection, processing, and utilization of data that will

permit databased planning and decisionmaking at the Ministry of Education and Culture (Butterworth, five months (June 1986 - May 1987) as needed; long distance technical support from Green (SUNYA), 10 days, as needed; local consultants on software, 10 days, as needed; an additional computer and printer; computer spare parts; computer maintenance and repair; software and supplies).

District Level Training in Data Collection and Analysis. Assistance to the Manpower and Statistics Section in training Regional and District personnel in the collection of accurate, reliable, and timely data and in the preliminary analysis of these data (Butterworth, one month, August 1986 - December 1986, as needed; Karmacharya, one month as needed; instructional materials; travel and daily allowances for trainers and trainees).

Implementation of the RETT II Evaluation Plan. Coordination of the implementation of the integrated evaluation plan for the Radio Education Division (RED) and the Center for Educational Research, Innovation, and Development (CERID) and assistance to these two agencies in their day-to-day activities (Karmacharya, seven months, June 1986 - May 1987, as needed; Butterworth, one month, as needed).

Assistance in Project Formulation. Assistance to the Planning Division of the MOEC in formulating and writing proposals for various projects funded by external donors, especially at the primary level (Butterworth, one month, June 1986 - May 1987, as needed).

Technical Assistance to the Proposed MOEC/World Bank School Mapping Project. Assistance to the Planning Division in the design of the School Mapping Project and provision of technical assistance in the implementation of the project (Butterworth, one month June 1986 - May 1987, as needed; Karmacharya, one month, as needed; IEES technical advisor, three weeks; local technical advisors, two months).

Participation in the IEES Policy Research Initiative. Assistance to the Ministry of Education and Culture in participating in the IEES Research Initiative (Education Management Information Systems) (David Chapman - ongoing).

Implementation of the Country Workplan.

Information Management. Butterworth, building on the introductory computer skills taught by Michael Green (SUNYA), has worked on a daily basis with Manpower and Statistics Unit personnel to computerize the Ministry's data on numbers of schools, teachers, and students. Her assistance has enabled the staff of that unit to shorten by seven months the time between the collection of data and the availability of data to Ministry decisionmakers.

As part of her staff training activities, Butterworth led the unit through an analysis of the dropout data collected by the Ministry. The analysis was important in several respects. First, it provided a hands-on exercise in the use of data to address policy issues. Secondly, the analysis identified the following significant facts:

- most wastage occurs between grades 1 and 2,
- twenty-three percent of all primary students,
- a given year are repeaters,
- forty-five percent of all repetitions are in the first grade, and
- there are significant regional differences in both dropout and repetition rates.

It is hypothesized that one of the the factors contributing to the high rates of school withdrawal may be the widespread practice of enrolling underage children in grade 1. This practice may, in turn, have led teachers to expect that all students need two years to complete the grade 1 curriculum.

The third benefit of the study was that careful inspection of the data isolated incongruencies between information collected in the census and school

enrollment data so that some districts "enroll" more than 100% of the eligible age cohort. This type of information is valuable as Nepal begins participation in the Education Management Information Systems area of the Policy Research Initiative.

During the past six months, Butterworth has also provided assistance to the Manpower and Statistics Unit staff in training Regional and District level personnel in the collection of accurate, reliable, and timely data. In preparation for the training, new data collection forms were designed together with tabulation and summary forms. As a result, this year for the first time all the usual data on enrollments and teachers will also be available by urban/rural and public/private categories. To date Regional workshops for supervisory personnel have been held in Dhankuta, Kathmandu, and Pokara. Several more workshops will be held the end of the year.

The major constraint in developing the information capacity of the Manpower and Statistics Unit continues to be the lack of personnel with statistical capabilities. While the personnel in the unit have made considerable progress in the inputting of data and the rationalization of data collection forms, they do not have the skills to undertake an analysis without constant guidance. If the current improvements in information management are to continue beyond Butterworth's appointment, individuals with the appropriate skills will need to be permanently assigned to the unit. The possibility and probability of identifying and appointing such individuals should be discussed with the individuals who permanently replace Upadhyay as Head of the Planning Division and Suwal as Head of the Manpower and Statistics Unit.

In addition to these training/research activities, Butterworth's scope of work also calls for assistance to the Planning Division in the conceptualization and design of projects for external funding. In this capacity, Butterworth, with the assistance of Karmacharya, over the summer and in the early fall, supplied

technical assistance to the Planning Division in the development of a proposal to the World Bank for assistance for school mapping and procurement of equipment needed by the Ministry. Final decisions on this proposal are pending. Funds were built into the IEES Nepal country workplan for IEES collaboration with the MOEC and the World Bank on the school mapping activity.

Butterworth has developed strong ties with the World Bank and other donor organizations in Nepal. She is cognizant of their activities and meets regularly with project staff. Both the USAID mission and MOEC personnel have repeatedly emphasized the value of her services.

RETT II Evaluation. As indicated in the trip reports from the country workplan activity and from the resident technical advisor, the implementation of the integrated evaluation plan for RETT remains problematic. The work of Dibya Man Karmacharya, the IEES evaluation specialist, is constrained by the fact that he lacks official status in either the Radio Education Division or CERID, the subcontractor for the evaluation. At the same time, reports from the field suggest that little of the evaluation plan would be implemented if Karmacharya were not available to schedule, monitor, and advocate the necessary field work.

Karmacharya has coordinated the field visits by RED and CERID staff, made extensive field visits himself, participated in the regular Friday teacher observation sessions at RED, assisted in the reorientation meetings for the teachers, and played a leadership role in the design, scoring and analysis of the initial test scores. The formative evaluation activities to date have provided valuable information on difficulties in both the design and the implementation of RETT II. This information will serve as the major input in the policy decisions which will be made about the project in the next few months.

These policy decisions, as have those with respect to the Manpower and Statistics Unit, have been postponed with the departure of Upadhyay. USAID/Nepal

after several years of effort has, however, successfully obtained the approval of new permanent positions for the Radio Education Division. The major constraint in the implementation of radio education personnel has been the lack of sufficient numbers of individuals with appropriate skills in the Radio Education Division. This manpower deficit has been realized in the slow delivery of the texts to participating teachers, poor monitoring of participants, delays in the formative evaluation activities, and poor morale among staff.

Negotiations for the EHR Sector Assessment. At the meeting of the IEES Executive Management Committee in September 1986, it was decided to propose that Nepal collaborate with IEES in conducting an education sector assessment activity to serve as the basis for future educational planning. During his visit to Nepal in November 1986, Windham prepared a proposal for conducting an educational sector assessment in Nepal. He proposed that a four person team work in Nepal for eight weeks between May and August 1987 to conduct a sector assessment that would be complementary to studies to be conducted by the World Bank or ADB. The work would be collaborative with the Government of Nepal and would emphasize educational cost and financing, primary and secondary education, teacher training, and adult/nonformal education (especially income-generation activities). These topics, and any others, would be collaboratively determined with the MOEC.

A final decision on conducting the assessment is pending at the end of this report period.

A summary of accomplishments in Nepal during this report period is provided below.

Planning Division MOEC

1. Continuous training in the use of ENABLE software was provided to members of the Manpower and Statistics Section as a continuation of the workshop conducted by Michael Green in May. In addition, there was an intensive one-week review of ENABLE for those staff, as well as for four new participants from RETT II, the Primary Education Project and other sections of the MOEC.

2. Programs to generate all the basic statistical tables published yearly in the "Educational Statistics Report" were developed.
3. Tables for 2042 (August 1985) were produced as well as several new tables presenting data in a more comparative form. With the assistance of the computer, these tables were ready at least 6 months earlier than usual.
4. Dropout data for over 1500 primary schools was entered on the computer and analyzed. A report was written describing the findings of the study.
5. Standardized tabulation and summary forms were developed for use with the new school level data collection form.
6. Two supervisors from each of the 75 districts were trained in the use of these forms. These two-day trainings were conducted by the staff of the Manpower and Statistics Section in each of the five development regions.
7. The Manpower and Statistics Section assisted the Planning and Evaluation Section in the preparation of budget summaries for the coming year.
8. School level data from selected districts will be entered on the computer in order to conduct more micro-level analyses. This data entry process has begun and is now proceeding.
9. The Manpower and Statistics section has provided requested information to the Secretary as well as other sections of the MOEC. This section is developing a growing reputation for providing reliable data in a timely manner.

Evaluation of RETT II

1. IEES has been providing the services of Dibya Karmacharya, to assist the Radio Education Division (RED) in the implementation of the evaluation plan.
2. Karmacharya has coordinated the activities of CERID helping field observation forms and sending research teams to the field according to schedule. Feedback from this field research has been given to the script writers and production staff at RED.
3. Regular Friday observation sessions have provided an opportunity for the RED staff to observe teachers as they listen to the programs about to be broadcast. These are followed by formative evaluation meetings in which the staff's observations are reviewed.
4. Initial English test scores and interviews of participating teachers have been computerized and analyzed.
5. Formative evaluation data has provided input into a series of meetings held to discuss the future directions of the project. This information was critical in the decision to reorient the teachers in the field and in suggesting revisions for the coming year.

6. A baseline math achievement test was administered to all the teachers and this is currently being analyzed.

Research

1. Under the direction of David Chapman and Douglas Windham, the meeting of the data management research group was held in Nepal during the second week of November. New Era, a local social science research firm, will conduct the study in Nepal. A draft of the research design and a rough budget were developed at this time.
2. The draft of the School Mapping Study, to be funded by the World Bank, was written by the RTA and Karmacharya.

Special Topic Activities

1. Kemmerer and Thiagarajan prepared the "Nepal Country Workplan: June 1986."
2. A proposal writing workshop, conducted by the RTA, for six members of the MOEC is currently in progress.
3. Regular donor coordination meetings are held by the RTA with heads of other education projects and organizations involved in funding education in Nepal.
4. Windham and the RTA held preliminary discussion with the MOEC and USAID/NEPAL on the IEES proposal to conduct an education sector assessment in Nepal.

1.5.3 Projected Activities

Activities for the next six months (December 10, 1986-June 10, 1987) include continuation of all the long-term activities described earlier, as well as the following:

Multi-level Workshop on Microcomputers and Data Analysis. Assistance to the Manpower and Statistics Unit, other MOEC sections, RETT II evaluators, and evaluation and research personnel working in other projects to acquire advanced competencies in data analysis and in the use of microcomputer tools and techniques in addressing policy questions (Michael Green (SUNYA), four weeks in-country, originally scheduled for January 1987, postponed due to the changes in MOEC personnel);

Evaluation Training Workshop. Provide additional training in formative, summative, and cost analysis techniques to RED and CERID personnel (John Mayo (FSU), three weeks in-country in January/February, 1987);

Review of RED RETT II Evaluation Activities. Review the progress and products of RETT II and RETT I evaluation, identify additional training needs, and (as needed) modify the evaluation designs, schedules, and roles and responsibilities of various participants (John Mayo (FSU), three weeks in-country in May/June, 1987).

Development of the IEES Country Workplan for Nepal. Identify, develop, and cost IEES activities for project year three (1 person month, scheduled for April/May, but will be rescheduled to follow rather than precede the sector assessment).

IEES Government of Nepal Sector Assessment.

This activity has been proposed for the next six months period, but no date has been specified as yet.

Planning Division MOEC

1. Prepare databases and enter district level data for 2043 (August 1986). This is a more difficult process than in prior years since the data is being tabulated by the supervisors, breaking down urban/rural and public/private distinctions.
2. Generate tables and additional analyses for the 2043 data.
3. Send one member of the Manpower and Statistics Section to AIT in Bangkok for a three-month training in more advanced computer and statistical techniques.
4. Prepare in-depth analyzes of selected districts. Use these to ask further questions to research through a sample survey process using the school level data received from all the schools in each district.
5. Continue the training process in ENABLE software and introduce the use of SPSS for statistical analysis.
6. Provide support to other sections which have recently received computers or which need special analyses done.

RETT II Evaluation

1. Prepare and field test alternative script segments prior to the revision of the Radio English Tuition Program (RETT II).
2. Administer the post test and exit questionnaires to the teachers enrolled in Radio English Tuition. Coordinate the analysis of this data.
3. Redesign the formative evaluation plan for the coming broadcast year based on the experiences of this year.
4. Offer the Evaluation Workshop II, if and when the permanent positions have been established and appropriately staffed.

Research

1. Finalize the EMIS research design and budget to be presented at the meeting of the researchers at the IEES Second International Conference in February.
2. Conduct the first phase of the research on Education Management Information Systems.
3. Support the School Mapping Study should the MOEC move ahead with its plans to conduct this study.

Special Topic Activities

1. Continue efforts to share information and data relevant to all groups working here in education.
2. Prepare the third year Nepal Country Implementation Plan for IEES Activities.

1.5.4 Constraints Encountered and Anticipated

The major constraints to IEES effecting improvement in education in Nepal arise from the lack of a sector-wide analysis of the educational system and from the shortage of permanent employees with the appropriate skills in the units with which the project is working. As described above, plans are now being discussed for a sector assessment activity. The USAID Mission has successfully obtained approval for new permanent positions in the Radio Education Division (RED), but individuals have not yet been appointed to fill those positions. Assignment of new permanent slots to the Manpower and Statistics Unit is necessary if the excellent

work in developing an information management system begun by Butterworth is to be institutionalized.

Even more notable than in previous report periods, staffing issues, have presented a major constraint to IEES activities in Nepal. Both recruiting and keeping qualified staff are critical to the success of activities in both the MOEC and at RED. The recent transfer of the Joint Secretary who has served with dedication and significant impact on the IEES International Steering Committee requires the rebuilding of rapport and support with his replacement. The Manpower and Statistics section requires staff with a stronger math/statistics background if it is going to expand its analytical capabilities. RED is still waiting for the announcement of permanent positions which will enable the project to recruit new staff and leadership. This constraint is endemic to all projects and parts of the government. Problems with the current civil service procedures and remuneration levels have been noted in earlier reports.

1.5.5 Conclusions and Implications for the Future

In the final analysis, most problems encountered in providing assistance to improve educational efficiency are symptomatic of the MOEC's limited absorptive capacities. The Ministry has a long history of disappointing relationships with international donor agencies. Donors have conducted extensive studies, followed by numerous projects; the majority have proven either too complex and/or too expensive for the government to sustain. To avoid a repetition of this history, IEES remains constantly realistic in its expectations, highly focused in its efforts, and, most important, continues to invest the time required to achieve its objectives gradually, through sustained day-to-day commitment and effort.

IEES initial activities in Nepal have focused on a critical need expressed by HMG, namely the need to provide timely and reliable statistics. With the help of

the computer and technical support, the Manpower and Statistics section is improving its performance. While the project's beginnings have been modest, the impact of IEES accomplishments is appreciated by the MOEC. This work has built trust and provided a basis from which to expand, if appropriate, project activities. The MOEC needs to improve its policy analysis capabilities and clarify its own policy directions. If a sector assessment is undertaken in Nepal, the process will be particularly valuable in this respect. Clearer policy guidelines would also provide much needed guidance to multilateral and bilateral donors.

The work during this report period clearly indicated the need for IEES continued presence at RED as essential to the formative evaluation process. Without this support, the pressure of broadcast deadlines and workload could overwhelm efforts to collect and incorporate information gained during the formative feedback process.

1.6 ACTIVITIES IN SOMALIA

1.6.1 Background

The activities of IEES staff members in Somalia pre-date the contract signing for the IEES Consortium. An EHR Sector Assessment was conducted in June-July 1983.

The assessment team reported to a Somali government committee chaired by the Ministry of National Planning and including representatives from the Ministries of Education, Culture, and Higher Education, Labor and Social Affairs, Finance, Agriculture, Livestock, Range, Forestry, and from the Chamber of Commerce and the Somali Institute of Development Administration and Management. A fully-edited draft copy of the assessment was delivered to the government in September 1983. Following a November 1983 review in Somalia of the assessment findings, the revised assessment was published in January 1984 as a Somalia government report.

While the direct effect of the assessment on individual changes in policy varies, the assessment played at least a facilitating role--and sometimes a decisive one--in policy change. Among the major changes that coincided with, or followed the completion of, the assessment are the following:

1. a decision to abandon guaranteed employment for all secondary school graduates;
2. the outplacement of redundant teaching staff under secondment to the Ministry of Education (MOE), Mogadishu;
3. the upgrading and expansion of staff of the planning and statistics unit at the MOE;
4. the formation of a Human Resources Department at the Ministry of National Planning;
5. the improvement of incentives for private sector development through the reduction of restrictive regulation;
6. a policy commitment to improved instructional quality at the primary educational level and to improved equity of access by gender and religion;
7. a new emphasis on quality versus expansion at the secondary education level;

8. increased emphasis on needs assessment in the secondary vocational/technical programs and a regional/international perspective on the labor market for graduates from such programs; and
9. exploration of radio alternatives for improved teacher training and adult basic education.

Of all the recommendations from the assessment, the need for study and reform of the government's system of administration and management met with the greatest support. In late 1983, agreement was reached between U.S. Ambassador and the Minister of Labor and Social Affairs for the Ministry to conduct a Civil Service Study (CSS) with technical assistance from the U.S. The study involved direct participation by the Ministries of Finance and of National Planning. The study was conducted in Somalia from February to May 1984. Editing of the study was begun subsequent to the selection of the IEES Consortium, but prior to issuance of the IEES contract draft CSS report in June 1984, was the first external task undertaken by the IEES consortium after the contract was signed. The final report was published as a document of the Ministry of Labor and Social Affairs in September 1984. The study's nine recommendations, in the four policy areas of organization and management personnel administration, compensation and staffing levels, and training needs, are detailed in the previous progress reports.

A National Symposium of Civil Service Development was held September 25-27, 1984, and opened with a strongly supportive speech by the President of Somalia, Siad Barre.

The symposium was attended by senior-level representatives of all ministries of the government, autonomous agencies, representatives of the Somali Revolutionary Socialist Party and the People's Assembly, as well as heads of private business firms and organizations.

Concurrent with the Somali government's positive response to the CSS was consideration of a management training project by the USAID Mission. With the

assistance of IEES staff, the Mission designed the Somali Management Training and Administrative Development (SOMTAD) Project in February 1985. The SOMTAD Project implementation began during 1986. The SOMTAD Project provides both formal and job-site management training for government and private sector staff, while enhancing the training and research capacity of the Somali Institute of Development Administration and Management.

Since the civil service symposium, the government has proceeded to trim the civil service. Most workers who are displaced are eligible for one year of salary plus training opportunities and/or land for agricultural development. In addition, the pay reform plans recommended in the CSS are being actively discussed by the Somali Parliament.

IEES Project activities in Somalia during Project Year One included a Headmasters Workshop, assistance to the USAID Mission in developing the Project Paper for the Somali Management, Training, and Development (SOMTAD) Project, and development of a detailed work plan for IEES activities in Somalia during Project Year Two.

Year Two activities affected three areas:

1. Improved management of education and human resources development, particularly in the Ministry of Education, but also in the Manpower Planning Unit of the MLSA and the Human Resources Unit of the MNP.
2. Improved resource allocation procedures.
3. Quality enhancement at all levels of the education system, but particularly targeted toward the primary and secondary levels.

Seven objectives for IEES work in Somalia were developed within these target areas and these objectives then formed the basis for specific activities budgeted at 11 person months of long-term and 16 person months of short-term technical assistance.

The primary accomplishments of the Second Project Year were: (a) placement of the IEES RTA Mark Berger in the Planning Department of the MOE and a series of planning activities conducted in the MOE with his assistance; (b) the conduct of a series of workshops in computer operation and software use in support of the development of a computer-based educational information system in the MOE; and (c) a major study on the Enhancement of School Quality conducted by Jerry Messec of FSU, Frances Kemmerer of SUNYA and S. Thiagarajan of IIR in August 1985.

Continued Work of RTA in Somalia. Mark Berger, IEES RTA in Somalia, has provided support to IEES activities as follows: (a) participated as a member of all the IEES teams in Somalia during the report period, (b) provided logistical support to the short-term technical assistance teams and to project management, (c) provided continuing assistance to the MOE Directorate of Educational Development and Planning, and (d) assisted the USAID/Somalia Education Officer as requested. Key activities during the first half of the Third Project Year included: (a) transfer of national education data from 1970 - 1985 to computer disks in support of the development of a computer-based education information system, (b) development of the Five-Year Plan, (c) assistance to the MOE in the preparation of donor funding proposals, and (d) participation in the development of the IEES Country Implementation Plan for Year Three. Berger also conducted three MOE workshops as described below.

Education Materials Distribution Workshop. During April 1986, Berger conducted a materials distribution workshop for 35 regional education officers. The workshop was planned by a committee of 15 representatives drawn from the MOE Planning Department, General Inspectorate, General Stores, and Textbook Production Units. Each region sent representatives from the regional Departments of Planning, Central Stores, and the Regional and District Inspectorate. Additional members of the Central MOE also attended.

The workshop resulted in a written report submitted to the Minister of Education. Recommendations from the report have been incorporated in the Five-Year Plan currently being prepared by GSDR. The final report has also been used as a resource document by UNICEF which has offered support for implementation of a materials distribution system. The report formed the basis for the materials distribution study conducted by Jerry Messec of FSU during this report period (August-September 1986).

Computer Workshop for MOE Personnel. During April 1986, Berger conducted an introductory and refresher course on microcomputer use for MOE officials. The workshop was designed to prepare MOE staff to participate more fully in the more advanced workshop which was offered by Dembowski of SUNYA in June 1986.

The MOE workshop accomplished three objectives. It enhanced the efficiency and effectiveness of the earlier workshop by providing refresher instructions prior to the more advanced training in June. Secondly, for the first time, higher level administrators in the MOE directly participated in computer training. Thirdly, the workshop represents the first effort to shift responsibility for introductory computer instruction to Somali instructors.

Country Implementation Plan Development. Field development of the Somalia Country Implementation Plan for IEES Activities for Year Three was conducted during April 1986 by David Chapman, RTA Mark Berger, and IEES CTO Joan Claffey. The Plan proposes 11 months of long-term and 16 months of short-term technical assistance during the third year of the project.

1.6.2 Accomplishments During Report Period

During this report period, three major events have affected the impact of IEES activities in Somalia. First, during mid-1986, the World Bank decided not to fund a fifth education loan to Somalia. During May 1986 a proposal of USAID/Somalia to

develop a primary education improvement project was not approved by AID/W. The combined effect of these decisions was to seriously reduce the funds which MOE had anticipated would be available for educational development activities. In response to these events, the IEES activities outlined in the Year Three work plan were reprogrammed to assist the MOE to develop a transitional strategy for improving the quality of primary education while other sources of external donor funding were pursued.

Computer Workshop on the Use of Statistical Data. Offered in June 1986, this workshop was the third in a series of activities designed to assist staff from the MOE Planning Department to develop the technical skills in the operation of microcomputers, the uses of software, the management of large databases, the analysis and interpretation of statistical data, and the use of statistical data in decisionmaking. The activities of this workshop were specifically designed to assist the MOE to develop and use a national education management information system. The purposes of the workshop were in the analysis and use of statistical data for decisionmaking. The workshop included: (a) review of and advanced training in Lotus 1-2-3 Software, (b) large scale data management and manipulation, (c) formulation of policy relevant questions, and (d) formulation of analysis procedures to address these questions. As a result of this workshop training, the Somali staff of the MOE Planning Department is now operating the newly-designed Education Management Information System.

Development of a Transitional Strategy to Improve the Quality of Primary Education. Due to the funding changes described above, the donor coordination activity described in the IEES Country Implementation Plan was changed to the development of a transitional strategy for responding to the loss of anticipated donor funding for educational development. From August 10-September 11, 1986, Douglas Windham of SUNYA and Sivasailam Thiagarajan of IIR assisted the MOE to

develop this transitional strategy. The purpose of the strategy was to identify a course of activities which the MOE could pursue that simultaneously will increase teacher effectiveness and student learning in the present school environments and also establish a core instructional format for the complementary improvements that should result from the full implementation of the existing primary educational reform. The emphasis of their work was to identify a strategy that could be accomplished within the constraints of Somalia's available financial and human resources. Their report was developed in country with the assistance of Frances Kemmerer of SUNYA and Jerry Messec of FSU, reviewed with appropriate MOE personnel, edited, and final copies were made available to the MOE and other appropriate groups.

Teacher Incentives Study. This study, undertaken by Frances Kemmerer of SUNYA from August 10-September 11, 1986, was devoted to collecting the background information and analyses necessary for the effective participation of Somalia MOE personnel in the IEES Policy Research Initiative on Teacher Incentive Systems. In addition, Kemmerer assisted in the development of the transitional strategy as described above. She prepared a paper, "Incentives for Primary Teaching in Somalia," which serves as a base for development of the teacher incentive research now being conducted under the IEES Policy Research Initiative. For further details on the Teacher Incentive Systems research, see Section 2.3.

Study of Educational Materials Distribution System. From August 10 - September 11, 1986, Jerry Messec of FSU assisted the MOE in a study of the educational materials distribution system to develop specific strategies for improving the existing system. The proposal recommended support of the proposed transitional strategy for primary education and discussed longer-term strategies for developing a national system for instruction materials distribution as well as immediate action steps to be taken within existing fiscal constraints.

While in-country Messec, Kemmerer, Thiagarajan, and Windham also participated in a training seminar on proposal writing, organized by the RTA, for MOE Department Heads and staff. The training seminar also served as an opportunity to present the recommendations for the transitional strategy for improving the quality of primary education which was being developed concurrent with the materials distribution planning activity.

During his time in Mogadishu, Messec also conducted a final review of the technical dictionary of economic terms developed in collaboration with the Somalia National University. Messec was instrumental in initiating that project during Project Year Two activities in Somalia.

Initiation of IEES Policy Research Initiative Activities. The Somalia MOE has requested to participate in two of the IEES Policy Research Initiative--Education Management Information Systems, and Teacher Incentives Systems. Initial planning meetings of both research groups were held in November 1986. The following MOE personnel were selected to direct Somali research activities:

Ali Hassan Gaal, MOE Director of Planning, attended the EMIS research planning meeting held in Nepal, November 11-18, 1986.

Hussein M. Said, MOE Director General of Educational Development, attended the Teacher Incentive Systems research meeting in Yemen, November 20-25, 1986.

Further details of these research activities are provided in Section 2.3.

Continued Development of the Somalia Education Management Information System. Development of an EMIS has been a high priority activity for IEES in Somalia. The EMIS work has been supported by the ongoing efforts of the IEES RTA, supplemented with a series of short-term training workshops on data and policy analysis and microcomputer use. During this report period, the MOE Planning staff were able to use the EMIS now in operation to assist the IEES teams developing the transitional strategy, the materials distribution system, and the teacher incentives study.

This work represents an important stage of EMIS development in which the training and previous work in database development converge to provide a meaningful contribution to policy analysis and program development.

Design Plan for Preparation of Teacher Training Materials. Stephen Benjamin of IIR conducted a three-week consultancy (November 17-December 9, 1986) with the MOE Department of Teacher Training to assist in the design of inservice teacher training materials. The purpose of the activity was (a) to discuss alternative approaches for designing programmed teacher training modules and assist in the selection of the optimal format to meet the needs of the inservice project; (b) assist in developing an overall plan for preparation of the programmed inservice teacher training materials; (c) assist in conducting task analyses of primary school teacher competencies to form the basis for programmed modules; and (d) develop sample lessons and criterion tests.

The assistance was designed to support the further development of the proposed transitional strategy for improving primary education in Somalia.

1.6.3 Projected Activities

The long-term IEES strategy for Somalia consists of three stages. The stages are organized by chronological sequence, but simultaneous activities may occur in more than one stage. In Stage I, intensive training activities will be conducted with the goal of enhancing the institutional capacity of the central administrative units of the Ministry of Education (MOE). The primary counterpart unit for the IEES project is the Directorate of Education Development and Planning. Training opportunities will also be provided for staff in the areas of teacher training, curriculum development, and primary and secondary school administration and supervision. Activities will be offered both in management skills and in specific technical skills. These activities began in Project Year One and will continue

throughout the life of the project. Specific training opportunities are to be identified each year in the annually-revised IEES Country Implementation Plan for Somalia.

Stage II will continue the emphasis on institutional capacity development, but will shift from formal training to collaborative on-the-job activities. The three major areas anticipated for collaborative exercises are: (a) planning, (b) research and development (including field experimentation), and (c) project design and implementation. In each of these exercises, one or more technical advisers from the IEES Project will work with a MOE team of professionals under the direction of a senior MOE staff member. Project design work will include both these project activities for which government funds are allocated and those for which external donor support will be sought.

Based on the results of Stage II activities, IEES will assist, as deemed appropriate by the MOE, in the implementation of projects and other planned modifications in the educational system. In Stage III, the focus of activity will be on the classroom and the school. Activities will be planned to improve MOE ability to affect the internal utilization of resources and the external relevance of the educational product. Some of the areas planned for Stage III involvement are inservice teacher training, curriculum and instructional materials development, dissemination and utilization of materials, and the examination of alternative instructional technologies, such as radio instruction.

Capacity building activities are concentrated in the early part of the project and emphasize training of key personnel and the design of more effective administrative systems. Three capacity-building activities address needs in the MOE Department of Education Development. These include: (a) management training for MOE staff; (b) development of a computer-based education information system; and (c) assistance in the coordination of donor assistance. The capacity building

activities of the RTA, while concentrated in the Department of Educational Development, will address needs across the entire MOE.

The objectives for IEES Project Year Three activities in Somalia are developed within the three areas of opportunity identified above. These objectives represent a refinement and extension of those objectives identified in the IEES Country Implementation Plan developed in 1985 (for Project Year Two activities). Specifically, two earlier objectives for IEES work in Somalia have now been omitted. These include plans: (a) to assist the MOE Inspectorate to design a systematic procedure for encouraging and monitoring instructional quality and to help train the Inspectorate in the use of that system; and (b) to assist the MOE to review and evaluate the school examinations currently in use and provide training to ministry officials, headmasters, and teachers in the concepts on appropriate practices of educational measurement. These objectives were dropped for two reasons. First, project experience in the first two years suggests that the project will have greater impact if it focuses on fewer and more closely interrelated objectives. Second, a more effective Inspectorate and an improved examination system more appropriately follow the implementation of an improved curriculum and proper training of teachers.

A summary of projected activities in support of the Somali educational system is provided below.

- Sivasailam Thiagarajan of IIR and Frances Kemmerer of SUNYA will provide technical assistance in Somalia from December 27 to January 19 to continue work on the transitional strategy for improving the quality of primary education as described above.
- Ali Hassan Gaal and Hussein M. Said will attend the IEES Second International Conference in Indonesia February 15-21, 1987. These representatives will report on the impact of IEES activities in Somalia and participate in meetings of the IEES Policy Research Initiative.
- The IEES Policy Research Initiatives in Education Management Information Systems and Teacher Incentive Systems will be initially implemented. During the International Conference, the detailed research proposals and budgets for each research initiative as developed by the Country Research

Coordinators will be reviewed and revised as appropriate. Direct funding for the in-country research activities will begin after the proposals and budgets are approved. Funding is expected to begin in March 1986.

- Michael Green of SUNYA is scheduled to conduct a three-week workshop on policy analysis and advanced microcomputer applications during April - May 1987. This activity builds on and extends previous work in developing the MOE EMIS and linking the increased availability of quantitative data to Ministry level decisionmaking.
- David Chapman of SUNYA is scheduled to work with RTA Berger for two weeks in April-May 1987 to develop the Year Four Country Implementation Plan for IEES Activities in Somalia.

1.6.4 Constraints Encountered and Anticipated

The following issues have presented, or potentially present, constraints to the effectiveness of IEES activities in Somalia.

Decision of the Future of the IEES RTA Position in Somalia. IEES RTA Berger completes his two-year assignment in Somalia in May 1987. IEES Project management now faces the decision of whether to provide a long-term RTA to replace Berger or to implement an alternative strategy for provision of technical assistance. The transitional strategy paper (discussed above) suggests the need for an RTA for at least one year to assist the Curriculum Development Center. An alternative approach discussed by the IEES EMC is to provide a series of short-term consultancies to implement the transitional strategy. The series of short-term consultancies would be less expensive than an RTA while allowing the project to more quickly vary the mix of skills in response to changing needs within the MOE. If the project selects the short-term consulting strategy, the first consultant in that series will be recruited to spend at least six months in Somalia to initiate the materials development work. This is necessary to ensure a stable base of materials development activities and initial continuity of effort upon which subsequent short-term consultants would build. The final decision will be determined by the level of Somali government support for the transitional strategy, budget constraints on the project, and the availability of appropriate personnel

for either the long- or short-term consultancies. More specific information of the issue of support and budget will be available following the consultancy of Kemmerer and Thiagarajan in Somalia in January 1987.

Coordination Between IEES and the Radio Learning Project. The Radio Learning Project, sponsored by AID S&T/ED is initiating a project in Somalia to provide nonformal adult education through radio instruction. This initiative represents a shift from the activities identified as highest priority in the IEES Country Implementation Plan and the transitional strategy paper and may compete with the IEES Project for Somali government and USAID Mission funding. Coordination between the two projects will be an important goal for the continued impact of IEES activities in Somalia.

Contracting Procedures for the Research Initiatives in Somalia. Somalia is one of the two IEES countries which are simultaneously participating in two policy research activities, teacher incentives and data management systems. Since IEES cannot contract directly with a government ministry and appropriate private agencies are not available in Somalia, the research will be contracted as fixed price personal service contracts. The specific details of these contracts will be worked out during the next three months. The problems confronted by the policy research in arranging these contracts for funding the research activities in collaborating countries are discussed in detail in Section 2.3 of this report.

1.6.5 Conclusions and Implications for the Future

The Transitional Strategy for Improving Primary Education is the culmination of IEES efforts to improve educational efficiency in Somalia. It builds upon the recommendations both the EHR Sector Assessment and the Quality Enhancement Study, as well as the concept paper developed in early 1986 for improving primary education. Strong government and donor community support for this strategy

indicates both the degree of commitment for the reform of primary education and also the careful work which the IEES RTA and technical advisors have accomplished to build this support. This strategy potentially offers dramatic improvement in both quality and access of education for Somali children. It is supported by the continued commitment of IEES to build a functional EMIS to serve educational analysis and planning. The recent successes in shifting the operational training for this EMIS to Somali counterparts point to the efficacy of the IEES training program as developed in the Country Implementation Plan, as well as to the dedication and work of Somali counterparts in the MOE Planning Department.

1.7 ACTIVITIES IN THE YEMEN ARAB REPUBLIC

1.7.1 Background

The IEES Project began activities in the Yemen Arab Republic (YAR) with conducting of an EHR Sector Assessment in October-November 1984.

The period from mid-December 1984, to late January 1985, was spent in revising the report and in preparing an Arabic translation of the Executive Summary.

In September 1985, the MOE requested that the USAID Mission provide an IEES team during October to work on revisions of the sector assessment. The team worked in Sana'a from October 17-31, 1985.

The final assessment report was distributed in February 1986. The EHR system faces enrollment pressure from three main sources. First, the normal increase in the age cohort (at a rate in excess of 3% annually) will mean an increase in the number of potential students. Second, the relatively high levels of incomes in rural and urban areas may be expected to promote higher demand for schooling. This will mean that the cohort participation rate may be expected to increase. With the present low participation rates (especially among young females), the potential for increased aggregate participation is limited only by the availability of facilities and teachers. Third, as government's attempts to improve educational quality begin to take effect, both attrition and repetition rates should decline. Since attrition is the greater of these two internal inefficiencies, the net effect of quality improvements in the short run should be to increase the aggregate level of enrollments.

Two major labor market characteristics of the YAR are the dependence on expatriate workers and the underutilization of female workers in modern economic activities. Non-Yemeni workers fill positions from manual to clerical to senior advisory and technical categories. Almost nine of every ten teachers at the pre-university level in Yemen are foreign, with the majority of the expatriates recruited from Egypt.

Cultural limitations on the education and employment of women are changing slowly. However, Government is committed to full support of educational and employment opportunities for women and this support is stated clearly in government plans. Increased utilization of Yemeni women would assist in reducing the dependence on foreign workers; this is an especially attractive option in terms of the teacher shortage issue.

Even under the most optimistic forecasts of teacher production and retention, it will be a decade before Yemeni teachers will represent a majority of all teachers at the primary school level. At higher educational levels, it may be the next century before Yemeni staff are in a majority.

Two major outcomes of the sector assessment activity can already be identified. First, the MOE is using the assessment as a primary resource document in preparation of the YAR's new Five-Year Plan for Education. Second, the USAID Mission has used the assessment as the basis for a concept paper for development of a bilateral curriculum implementation project.

David Chapman of SUNYA worked with MOE and Mission February 11 through March 1, 1986, to develop a Country Implementation Plan for IEES activities in YAR. These activities cluster into four areas of concern: (a) long-term planning for the MOE and development of an education database to support planning and policy analysis; (b) research and policy analysis to support the more rapid Yemenization of the teaching force; (c) assistance in conducting and implementing recommendations from an Organization and Training Needs Study of the MOE; and (d) work with the Ministry of Civil Service (MCS), particularly in the development of a more effective manpower needs assessment and in the analysis of existing data available in the MCS. The chief aim of the Yemen Country Implementation Plan for IEES activities is improvement in the efficiency of resource utilization in education.

Roger Boothroyd of SUNYA accompanied Chapman on the Country Implementation Plan and assisted the Education Research and Development Center (ERDC) in the design of their research agenda and specification of their computer hardware needs. Boothroyd conducted a two-day workshop on data coding and entry for the staff of ERDC and assisted in the design of two Mission-funded training workshops on data coding, computer theory, and analysis.

Douglas Windham of SUNYA and Jerry Messec of FSU assisted the MOE in developing the education contribution to the YAR Third Five-Year Plan (FYP) April 19-May 12, 1986. This assistance was requested during development of the IEES Country Implementation Plan in February and provided a foundation for the Education Information Management System (EMIS) activity planned for August 1986. Working closely with the Statistics and Planning Office, Directorate of Technical Affairs, Windham and Messec designed basic data sheets for the presentation of enrollment, teacher, and other school characteristics data, created projections of educational enrollments, and generated teacher supply and demand forecasts. Data assimilation for this activity was completed in April at SUNYA and Jeremy Strudwick of SUNYA returned to YAR June 16 to July 15 to continue assistance to MOE in FYP data assimilation and analysis. Strudwick returned with the district level files completed at SUNYA and worked closely with Statistics and Planning personnel in spreadsheet analysis and database improvement for policy discussions.

1.7.2 Accomplishments During Report Period

During this report period, the major activities of the IEES Project in the Yemen Arab Republic (YAR) have been the following:

1. technical assistance to aid the MOE in preparation of the database to use in development of the Third Five-Year Plan (June 17 to July 18);
2. a data processing/microcomputer workshop held at SUNYA for three members of the Ministry of Education and three members of the Education Research and Development Center (July 7 to July 31);

3. technical assistance to aid the MOE in the design and development of a long-term Educational Management Information System (EMIS) (July 6 to August 4);
4. technical assistance to aid the MOE and USAID/Sana'a in the economic and financial issues related to development of a project paper dealing with issues of curriculum, instructional materials, and teaching (November 11 to December 6);
5. participation of a YAR country research coordinator (CRC) in the initial meetings of the EMIS policy research team in Kathmandu, Nepal (November 10 - 19);
6. participation of a YAR CRC in the initial meetings of the Teachers Incentives Systems policy research team in Sana'a (November 21 - 28); and
7. visit by the IEES Country Coordinator to Sana'a to discuss reprogramming of second half of 1986/87 IEES Country Implementation Plan with USAID/Sana'a and MOE officials.

As these activities indicate, the YAR Country Implementation Plan for IEES Activities 1986/87 focuses on development of MOE planning effectiveness through the provision of technical assistance to improve the MOE database (immediately and over the longer-term) and the provision of formal and collaborative training opportunities to upgrade the ability of the MOE staff to produce and utilize data. The goal of this set of activities is to strengthen and broaden the educational policy dialogue by providing more relevant, more reliable, and more timely data than has been available in the past. These activities are discussed in more detail below.

Assistance to the MOE by Preparing a Database for the Third Five-Year Plan.

This activity involved the preparation and production of a database to be used for policy debate in respect to the MOEs long-term planning agenda. The database, prepared for Technical Affairs Directorate, profiles:

- the 1984/85 and 1985/86 enrollment statistics for primary, preparatory, general secondary, and teacher training education;
- teacher data by type of contract and Yemen residence status (national or expatriate);
- percent female student in grade 1 and total grade levels;

- average school and class sizes;
- students per teacher;
- teacher per school; and
- percent Yemeni teachers.

These statistics were computed for each education cycle at the district, governorate, and national levels. From this database, enrollment projections were calculated for the period 1986/87 to 1991/92. Teacher requirements also were projected for this period, as were expected numbers of graduates per education cycle and corresponding cycle costs.

Douglas Windham of SUNYA and Jerry Messec of FSU initiated work on the first stage of this project in April 1986. The completion of the project involved two further phases of activity--one at SUNYA May 14 to June 11, the second in Yemen from June 17 to July 18.

The work at SUNYA was directed by Jeremy Strudwick of SUNYA and consisted of translation of raw data brought from Yemen and entry of the translated material into prepared computer-based spreadsheets. This task proved to be extremely time-consuming and, even with the full-time assistance of six graduate students, was not fully completed by the time of Strudwick's departure for Yemen in June 1986. However, a critical component of the work done at SUNYA was the identification of a large number of areas of either suspect or missing data that would need either to be verified or added during Strudwick's work in Sana'a. All data processed at SUNYA was stored on disk, and together with a cross-sectional sample of the printed spreadsheets, was carried to Yemen.

Upon Strudwick's arrival in Sana'a, a schedule was agreed upon with MOE counterparts, Al-Komeim, Hamud Nagi, and Abdalbaki Anam, in order to permit time to correct, verify, and re-input data, and also print out a further cross-section of

the spreadsheets for specific discussion as to the suitability and acceptability of their format and the assumptions upon which the enrollment projections were based. As a further check for data accuracy, it was agreed that a random selection of the data entered at SUNYA would be compared with the original data at the MOE. This process resulted in the identification of a large number of errors that had originated in the initial transposition of the MOE data files. A concerted effort by the MOE Planning and Statistics division staff over a ten-day period produced a more reliable set of data and much of the original data entries were consequently replaced by more accurate and complete enrollment statistics.

Following the completion of this revised enrollment database, a series of initial enrollment projections were produced. Due in part to the rapid growth in school enrollments over the last two years, retention rates for districts and governorates were found to vary dramatically. After reviewing the sample spreadsheets, extended discussions with MOE counterparts resulted in a decision to adopt the national retention rates for each cycle of education rather than follow their original request to base the district and governorate projections on their own unique retention rates. This, without doubt, resulted in a more realistic set of enrollment projections, particularly for the primary cycle.

It was made clear to MOE counterparts that many of the projections for both the preparatory and secondary cycles remain suspect due to the fact that they often were based on incomplete data or on very small enrollments. This particularly is true of the female component of the projections and for those districts that either have a small number of schools, each with low enrollments, or a high proportion of incomplete schools.

At each stage of the development and finalization of the projection spreadsheets, discussions with Hamud Nagi and Abdulbaki Anam of the Planning and Statistics Division resulted in agreement on procedure and intention, while also

fostering the development of a clearer understanding of the limitations and possible use of the statistics developed. At the completion of the planned activity, a full set of printouts were presented to al-Komeim, Director General of Technical Affairs, to be reproduced and distributed according to MOE Deputy Minister Abdoraboh Garadah's wishes. Arrangements were made to store the disks at the USAID Mission Education Office, where they could either be copied or printed from as required.

Discussions with Deputy Minister Garadah generated some changes in the national level projections, due his request to adjust examination pass rates. Three sets of data available at the Ministry reflected different pass rates on final grade examinations. It was not until the Deputy Minister produced the official rates that the problem of which to use was solved.

The spreadsheets that illustrated current enrollment and teacher supply data generated immediate policy debate within the Deputy Minister's Office. MOE concern was directed at the methods of teacher allotment to districts and the relevance of maintaining parity in student-teacher ratios across districts and governorates. A meeting with Minister Mohamed Abdullah Algaefee, Deputy Minister Garadah, Acting USAID Mission Director Lukompski, and IEES advisors David Chapman and Cynthia O'Brian resulted in support for IEES activities at the MOE and praise for their tangible contribution to the development of education policy and improved working relationships between all concerned in the development of educational policy.

Care was taken throughout this assistance to MOE to determine which data were more accurate. By a series of illustrated examples, using conflicting spreadsheets, it is possible to show the consequences and dangers of using incorrect data. It should be noted that MOE counterparts are aware of these problems and that the examples provided served to strengthen their commitment to better data collection and recording.

Summary of the Data Processing/Microcomputer Workshop. The Data Processing Microcomputer Workshop held at SUNYA from July 7-31, 1986, was conducted by the Evaluation Consortium at SUNYA for representatives of the Yemen Arab Republic (YAR). Members of the YAR Educational Research Development Centre (ERDC) and Ministry of Education (MOE) staff took part in the workshop.

The six participants in this training activity were:

Hassan Ali Abdulmalik	ERDC
Abdulbaki Anam	MOE
Samira Abdul Kader	ERDC
Ali Mohamed Al Kowri	MOE
Hamud Abdu Naji	MOE
Ghaleb Hamood Sultan	ERDC

Participants received training in the use of microcomputers for the purpose of data processing. Instruction focused on data coding, entry, analysis and use of microcomputers to facilitate the data processing sequence. The workshop objectives and how they were met are described below.

- Set-up, maintenance, and operation of microcomputers similar to those purchased by ERDC. Participants received training on IBM-compatible microcomputers using ENABLE wordprocessing and SPSS/PC+ (Statistical Package for Social Sciences/Personal Computers) software. Since ERDC microcomputers had not been purchased at the time of this workshop, instruction was directed toward general maintenance and operations of microcomputers components, function of hardware, and care of both hardware and software.
- Development of codebooks for coding questionnaire data. A preliminary codebook was developed for the School Location and Facilities (SLF) survey. Primary emphasis was placed on coding the data in a manner meaningful to MOE and ERDC. This was determined by policy issues pertinent to both agencies. Participants also practiced data coding skills with the workshop, and were able to examine random surveys, correctly code them, and develop an appropriate codebook for those surveys.

- Use of wordprocessing, data management, and statistical analysis software. ENABLE and SPSS/PC+ software were used during this workshop. ENABLE was used to create documents, data files, and external files for SPSS/PC+ analysis programs. SPSS/PC+ was used to run statistical procedures on data. Participants were able to create, edit, store and print files on ENABLE, as well as run, edit, and debug SPSS/PC+ programs.
- Formulating of Policy Related Question that can be addressed by the SLF data set. Policy related questions were addressed throughout the workshop. These included issues of teacher/student ratio, resources of schools, and cost per pupil. Data was coded and SPSS/PC+ programs were written in terms of these issues.
- Development of SPSS/PC+ programs for analysis of SLF data. Basic SPSS/PC+ programs were developed that were suitable for answering policy related questions. Programs were generally descriptive in nature (i.e., frequencies, crosstabs). Data transformation commands (i.e., select if, recode, compute) were also used to clean data and address policy concerns.
- Interpreting, formatting and reporting of results. Participants examined output and reviewed ways of presenting data in a manner most likely to be useful for decisionmakers.

Recommendations resulting from the workshop. The following recommendations were developed as a result of the training described above.

A resident technical advisor is recommended to set up the microcomputers. As the MOE and ERCE staff work more closely with their data sets, specific concerns which could not be anticipated in the four-week workshop may arise. An advisor could address these concerns immediately, allowing ERDC and MOE staff to maximize the efficiency provided by microcomputers.

A review period for instructors prior to the scheduled January 1987 workshop is needed. The participants for the July 1986 workshop will act as instructors for the January workshop. Since these instructors will not have access to microcomputers for several months, a review period of approximately one week will allow them to practice skills learned during July and increase their effectiveness as instructors for the January 1987 workshop.

A longer training period would benefit workshop participants and allow them to improve skills acquired throughout the workshop. More time is needed for

participants to manipulate the microcomputers and become more comfortable debugging SPSS/PC+ programs. Results of an evaluation form completed by workshop participants indicate that they acquired a considerable amount of new knowledge, would definitely recommend this type of training for other persons with similar job responsibilities, and would have preferred a longer training period in order to practice their newly acquired skills.

A brief orientation for Directors General is suggested to fully inform them of the training, and to facilitate communication between the DGs and members of their staff who have attended the workshop. This orientation need not be as comprehensive as the actual workshop, but may be critical for effective operation within departments.

Assistance to the Yemen MOE in the Design of an Education Management Information System. The technical assistance of David Chapman and Cynthia O'Brian in designing an Educational Management Information System was judged extremely effective by the MOE. Five factors were identified which contributed to the impact of this IEES assistance:

1. The activity followed directly on the work of IEES advisors Douglas Windham, Jerry Messec, and Jeremy Strudwick, who had earlier assisted the MOE in analysis of enrollment, staffing, and facilities data as part of the MOE Five-Year Plan Development. The statistical summaries and projections developed by these IEES technical advisors provided an example to the MOE of the types of information that EMIS could produce for their use.
2. Six staff from the MOE and ERDE were attending a computer workshop in the USA during the time Chapman and O'Brian were in Yemen. This reinforced the perception that the activity was a part of a larger IEES effort to assist the MOE.
3. USAID/Yemen is in the process of purchasing three microcomputers for the MOE; thus the assistance was seen as part of a larger MOE initiative.
4. The MOE was still in the process of developing the education portion of the Third Five-Year Plan. The need for improved systems of collecting and analyzing data were thus particularly salient during the time Chapman and O'Brian were in-country.

5. During the first week in-country, YARG issued a decree requiring that 50% of all secondary school graduates teach for one year after graduation. The purpose of the decree was to reduce Yemen dependence on expatriate teachers and thereby reduce the drain on foreign currency reserves. The team was able to assist the MOE senior staff in estimating the impact of this decree both on financial foreign teachers and on the continued demand for expatriate teachers. This assistance further demonstrated the value of EMIS capacity.

At the same time, the team's work with the Ministry helped surface a series of issues concerned with information collection, analysis, and use that need to be collaboratively addressed by the MOE staff and donor groups working in the area of data systems management.

Chapman and O'Brian spent July 6-9 in Amman, Jordan, meeting with Ministry of Planning officials responsible for developing and using a computer-based EMIS. The USAID Mission in Yemen had suggested that this trip might produce transferable strategies for the Yemen EMIS. The Jordan EMIS is well-designed, but is more sophisticated than is appropriate for Yemen at this time. The system required a considerable amount of BASIC programming to develop the interfaces between commercial programs; such programming requires a highly-skilled cadre of technicians.

The EMIS activity in Yemen consisted of four separate, but overlapping activities:

1. Follow-up to analysis of MOE national enrollment and staffing data conducted by Windham, Messec, and Strudwick;
2. Assistance to the MOE in the design of an Educational Management Information System (EMIS);
3. Follow-up negotiations with the Ministry of Civil Service and Administrative Reform (MCSAR), concerned with arranging IEES participation in a labor force analysis/training needs assessment; and
4. Assistance to the USAID Core Project team working with the Ministry of Agriculture in manpower planning related to development of the YAR Third Five-Year Plan.

The first two of these activities are of critical importance to IEES objectives in Yemen and are discussed in detail below. Activities three and four relate to projected activities and are further discussed in Section 1.7.3.

Follow-up to Analysis of MOE National Enrollment and Staffing Data.

Strudwick, following the work of Windham and Messec, completed an analysis of the annual MOE data on school enrollments, staffing, and facilities. This analysis was much needed and was very well received by the Deputy Minister and the DG of Technical Services. After Strudwick's departure, it soon became evident that other MOE General Directors did not fully understand the statistics which were then available and were unsure how to use them in their planning. The unfamiliarity of the DGs with computers and computer analysis resulted in some criticism of the statistics and many questions regarding their use.

To overcome this problem, Chapman and O'Brian met with the DGs for both General Education and Teacher Education, reviewed the data summaries and discussed how the data had been collected, verified, and analyzed, and what types of policy questions it could be used to address. They again reviewed this information in a general meeting of the Deputy Minister and all DGs. O'Brian presented a demonstration/training session on computer use to al-Kobati to assist in the understanding of the results of the enrollment analysis.

The DGs initial questions regarding the data and its use ultimately served a useful purpose in establishing a useful EMIS as:

- the IEES team was able to use this opportunity to illustrate the training needs of the data users as well as the data analysts,
- the questions raised were used to illustrate what types of information an EMIS can be expected to produce, and
- the process emphasized the need for interpretation even after statistical analysis is completed.

Assistance to the MOE in the Design of an Educational Management Information System (EMIS). IEES assistance in design and EMIS with the Ministry has been summarized in three project documents:

- A report discussing a series of issues in the design and implementation of an EMIS in the MOE;
- A summary of key points raised in the full paper; and
- An Arabic translation of the summary which was distributed and discussed with the senior Ministry staff.

The IEES team discussions with senior Ministry personnel provided an opportunity to assist staff members in understanding how computers work and how to interpret output of computer analyses, as well as to solicit their views on how the EMIS should be structured.

Assistance to Project Paper Team. In November 1986, the IEES Project provided consultant Stephen Hoenack as the economist/financial analyst to serve on a bilateral project paper design team. The team developed a project proposal to improve the quality of instruction in Yemani schools. The project design focused on issues of teacher quality and behavior, the curriculum, and institutional support materials. The core project paper team was provided by Creative Associates. In addition to IEES support, assistance was also provided by the BRIDGES and Radio Learning Projects, both funded by S&T/ED AID/W.

Hoenack prepared the economic analysis and justification for the project (primarily a least-cost analysis approach). He also developed budget estimates for the various project components by working in collaboration with the other team members. This project paper is now being reviewed by AID/W.

EMIS Policy Research Team Participation. During the period of November 10-19, David Chapman chaired the initial meeting of the EMIS Policy Research Initiative Team in Kathmandu. Kassim Berihe of Sana'a University has been designated as the Country Research Coordinator for this activity in YAR. Berihe

will be responsible for design and implementation of the EMIS research work. He will work collaboratively with Chapman, Jerry Messec of FSU, the IEES Project Team Leaders for the EMIS research area, as well as with his colleagues on the policy research team from Nepal and Somalia. Further details on this research topic are included in Section 2.3, which describes the IEES Policy Research Initiative.

Teacher Incentives Systems Research Team Participation. Between November 21 and 28, S. Thiagarajan of IIR and Frances Kemmerer of SUNYA chaired an initial meeting of the Teacher Incentives Policy Research Initiative team in Sana'a. Noman Saed Alaswadi, Head of the Planning and Evaluation Section of the Department of Nonformal Educations MOE, was designated as Country Research Coordinator for this area. During the meetings, draft research designs, implementation schedules, and budgets were developed. Liberia and Somalia are the other two countries participating in this research topic. Further discussion of the Teacher Incentives Systems research topic is included in Section 2.3.

1.7.3 Projected Activities

Reprogramming of YAR Country Implementation Plan for IEES Activities for December 1986 to June 1987. In discussing the need to revise this year's IEES Country Implementation Plan, Karl Schwartz, USAID Mission Education Officer in Somalia, noted an immediate need for a team to work with the Planning and Statistics Department of the MOE on design of a new MOE data questionnaire. Because of Chapman's probable unavailability, it was suggested that Roger Boothroyd and Jerry Strudwick, both with experience in the YAR, work in Yemen between January 7 and February 1 (for a total of approximately six person weeks). It was suggested that a representative of the BRIDGES project serve on this team to assure that any new MOE program also include questions to elicit data required for BRIDGES project analyses. In their November 1986 meetings Schwartz and Windham agreed on the need

for a special questionnaire for cost data, a major gap in the current MOE data system. This activity will be coordinated by Chapman because of its close link to his long-term EMIS⁵ work; Windham also suggested that IEES might consider involving Kassim Berihe, who is currently the YAR country coordinator for the EMIS research activity.

Other IEES activities proposed for this project year (in addition to the Country Implementation Plan) are described below:

Computer Training. Mission funding already has been advanced for this activity and Roger Boothroyd and Mary DeMasai have been designated as the IEES consultants to be responsible for the training. Computers are expected to arrive in late January, so this activity probably will take place in February. The USAID Mission will notify IEES as soon as they have receive a firm delivery date.

Civil Service/Manpower Study. The Scope of Work for the initial two person month activity is contained in the Country Implementation Plan. An important exception to the plan is that the study will now focus on public sector and parastatals only. Schwartz will meet with senior MCSAR staff in early 1987 to discuss the timing of initial visit (probably February 1987) and possible add-on activities that will be financed by the Mission.

Organizational Study of MOE. Schwartz reports that this study has been proposed by the MOE as an activity they wish to proceed with during this project year. Possible scheduling will be discussed with Deputy Minister Garadah in early 1987.

Schwartz and Windham met Deputy Minister Abdoraboh A. Garadah in November 1986 to discuss four major topics:

1. the Teacher Incentive System and EMIS research activities;
2. the revised Country Implementation Plan activities for 1986/87;
3. the relationship of IEES to the ERDC (Educational Research and Development Center) and their work on school location analysis; and

4. the Deputy Minister's participation in the forthcoming IEES Second International Conference in Indonesia.

Windham reported to Garadah that both of the Yemen Policy Research Initiative activities are proceeding well and requested that he and Karl Schwartz review and comment on both the plans and the budgets which have been prepared for the research activities by Berihe and Noman Alaswadi. Windham suggested that Noman be encouraged to enroll in the afternoon Yemen-American Language Institute YALI sessions to upgrade his comprehension and speaking in English. Both Garadah and Karl Schwartz agreed to support this training.

The revised Country Implementation Plan proposals were reviewed and approved by Garadah during his meetings with Windham. Garadah suggested that the work on the new questionnaires for schools should be concentrated on the January 1988 data collection and not on 1987, because changing forms in early 1987 would potentially create a dangerous delay in data collections. Windham suggested that the IEES team also could prepare analytical formats and these could be installed in the MOE computers when they are delivered. Garadah strongly endorsed the need for special attention to the problem of developing accurate cost data.

The Deputy Minister was enthusiastic about the assistance of an organizational specialist to help MOE prepare recommendations on alternative types of reorganizational reform. He noted that this would be the first step in a long process and is a politically and bureaucratically sensitive area, but that the excellent IEES reputation and record in working with the MOE would facilitate this process.

Garadah advised a policy of restraint on the issue of working with the ERDC at this time. He recommended that the ERDC desire for independence should be respected. Since the ERDC has now installed a mainframe computer, which is not compatible with the MOE microcomputers, IEES training will concentrate on the MOE staff in the future. It was agreed that the next Country Implementation Plan

should include an activity to conduct a school location analysis on a single governorate which would provide a comparison with the quality of results now achieved by ERDC.¹ Before this can be accomplished, however, it will be necessary to obtain the data records from the ERDC.

1.7.4 Constraints Encountered and Anticipated

As IEES activities supporting the development of an Education Management Information System in Yemen have received wider support within the Ministry of Education, the major problem encountered with incomplete and inaccurate data has become more critical. Not only were enrollment statistics incorrectly recorded or inconsistently copied from documents, but two or more sets of different data were frequently reported for the same statistic. Notable examples were the provision by MOE counterparts of three sets of examination pass rates for the last 5-10 year period, and two very different sets of 1985/86 budget figures for MOE recurrent costs.

Care has been taken by IEES technical advisors to MOE to determine which data were more accurate. By a series of illustrated examples, using conflicting spreadsheets, it is possible to show the consequences and dangers of using incorrect data. IEES technical advisors continue to make MOE counterparts aware of these problems and to provide such examples in order to strengthen counterpart commitment to better data collection and recording.

IEES teams assisting MOE in EMIS development have observed three factors which constrain the effectiveness of future technical assistance related to the development of an EMIS.

1. Ministry officials have little or no background in the operation of computers and are generally unfamiliar with what computers can and cannot do. This is an important constraint to technical assistance activities related to developing an effective EMIS. IEES has recommended that the January 1987 demonstration/workshop be opened to the entire Ministry and that all MOE officials be encouraged to attend.

2. Lower level staff have already gained far greater information about computer operations and data analysis than have some of the MOE DGs. This may pose a serious problem as decisionmakers in the future may not comprehend the significance of the data which their staff are able to develop. The solution to this problem is to continue the steps which have been taken to familiarize DGs with the EMIS and to carefully involve them in its development.
3. As the MOE moves from using databases within each Directorate to creating a common database for the entire Ministry, DGS may soon realize that they must justify and defend their decisions in ways that they were not previously required to do. Some DGs may thus perceive a data system as a potential threat to their autonomy, since they may no longer be able to defend decisions in terms of idiosyncratic data available only to their department. As this process becomes more widely perceived, resistance to the development of the EMIS may grow. It is thus imperative that all DGs become convinced of the value of the EMIS system in informing their decisionmaking in order to counter this potential problem.

1.7.5 Conclusions and Implications for the Future

IEES activities in support of the YAR MOE have greatly increased since the previous report period. The implementation of the Yemen Country Implementation Plan for IEES Activities has provided a continuity and strategic framework which is acknowledged and appreciated both by YAR counterparts and the USAID Mission. The Yemen EHR Sector Assessment, conducted by IEES in late 1984, is now achieving wide impact within MOE and other key ministries and its recommendations are widely discussed and debated. IEES technical advisors have demonstrated the value of databased decisionmaking to MOE officials and have achieved significant progress in the creation of an effective EMIS. Both MOE and Mission have requested wider services from IEES during the next report period and this support indicates that IEES may be expected to continue with effective assistance in YAR.

1.8 ACTIVITIES IN ZIMBABWE

1.8.1 Background

IEES activity in Zimbabwe was initiated in September 1984, after Zimbabwe expressed an interest in having IEES provide training and technical assistance in the general areas of macro-analysis, planning, and evaluation in order to strengthen these capacities within the two ministries.

Prior to IEES involvement in Zimbabwe, USAID initiated a \$45 million educational development project there entitled Basic Education and Skills Training (BEST). The purpose of the five-year project is to provide education and human resource development support to the Ministry of Education (MOE) and the Ministry of Labor, Manpower Planning, and Social Welfare (MLMPSW). The Ministries can propose projects for funding under the auspices of the BEST program. The scope of the EHR development work is sufficiently comprehensive to include many of the support activities normally provided by IEES.

Between October 16 and November 14, 1984, Joseph McDonald of FSU worked in Zimbabwe to develop the evaluation plan for the BEST Project. McDonald, along with James Cobb of FSU, returned to Harare from February 23 to April 2, 1985, to provide technical assistance in writing proposals for projects funded under BEST or requesting funding for new BEST programs, to develop a plan for ministry participation in a graduate degree program at the University of Zimbabwe (UOZ), to identify research areas related to BEST which could be used as topics for Ph.M. and Ph.D. degree candidates, and to determine workshop content areas to develop research and evaluation skills for the candidates and others from the two ministries.

The response to the graduate degree program was excellent and thirty-one members of the MOE were enrolled in the Master's and Doctor's degree program. Seven members from the MLMPSW enrolled for the diploma in Adult Education and one

in the Master's program. Entrance requirements for the Faculty of Education degree program were such that MLMPSW personnel could not qualify, so these candidates required special considerations in the training scheme. The encouraging response then increased the student advisory load on the faculty of the UOZ and plans had to be made to alleviate this burden. By the middle of December, six of the 31 MOE degree candidates had their research proposals accepted and were formally registered into the degree program at UOZ.

The IEES appointed Victor Levine as the RTA in Zimbabwe and he arrived in-country on September 12, 1985. Levine was assigned to teach the courses of Dean Chikombah, Dean of Education, who was on sabbatical from UOZ and to coordinate the IEES activities in support of the BEST program.

To overcome the understaffing at UOZ in advising the large number of graduate students, Levine worked with them to write a proposal for a Research Support Center. The proposal included the addition of staff and provision of support materials in order to strengthen the capacity of the Faculty of Education to meet the expanded research degree program and expanded training activities in vocational and technical education. The possibility of funding the center through BEST program funds was scheduled to be explored when the proposal was presented to the BEST working committee at their December 1985 meeting. Prior to this meeting, the proposal was redrafted to emphasize linkages to the BEST program and the need for research support. Resources requirements were listed categorically without a budget with the intention of developing a consensus on requirements, prior to costing activities.

To assist the degree candidates in writing their proposals and in acquiring the necessary research skills to carry out their studies, training workshops were planned for the Fall. However, the MOE found that it could not release key personnel at this time and the workshops were canceled.

Michael Mambo, Principal of Kwekwe Technical College, was enrolled in a graduate program at the Florida State University to pursue a Master's Degree in Educational Leadership. He now serves as a graduate research assistant to the IEES Project.

An IBM computer was provided by IEES and with the assistance of consultant Eric Eno, and was installed and upgraded to handle SPSS. A full-time project administrator was hired to assist the IEES office.

The proposal for the Research Support Center of UOZ was not taken up at the December 1985 meeting of the BEST Working Committee as first scheduled, but was rescheduled for the January 1986 meeting. At the January meeting, it was decided to defer dealing with this proposal until the meeting scheduled for February. The MOE took exceptions to much contained in this proposal and the proposal was withdrawn.

With the postponement of the workshops for the graduate degree candidates in December, it was proposed that seminars be conducted in May for three to four weeks. These seminars would provide the following four activities:

1. General Seminar on Research Methods,
2. Small Group Special Topic Seminars,
3. Consultation with Individual Students, and
4. Consultation with Faculty on Research in Progress.

Subsequent events prevented the holding of these seminars and at this time it appears that the seminars will not be rescheduled. The lack of such seminars will have an adverse affect on those candidates enrolled under the IEES program at UOZ.

During this period of time the Faculty of Education proposed the production of a series of working papers to USAID/Harare. These papers were proposed to review and assess the critical constraint areas in the Zimbabwe human resource sector and the progress toward alleviating these constraints since independence. The papers

would provide essential background material required to implement the mandated mid-program evaluation of the BEST program.

Other activities were developed and proposed, but events within the country have prevented the implementation of these activities. Victor Levine has continued to teach courses at the university and supervise students' theses. Michael Mambo has continued his studies at the Florida State University and provides helpful support to the IEES Project. However, it appears that the Research Center Proposal, the writing of the monographs, the conducting of seminars for graduate study candidates, and IEES involvement in the BEST Evaluation have been canceled.

1.8.2 Accomplishments During Report Period

Levine's tour of duty as Technical Advisor to the University of Zimbabwe was completed on July 31, 1986. At the request of the USAID Mission, however, IEES extended support for short-term technical assistance to be provided by Levine from August 1 to October 31, 1986. During this period of short-term assistance, Levine provided assistance to the BEST Program, including review and assistance in the development of evaluation plans, specifying requirements for baseline data and supporting analysis. Levine also assisted in the development of stronger institutional capacity in educational planning, analysis, and evaluation at the University of Zimbabwe.

1.8.3 Projected Activities

No further IEES activities are planned at this time.

1.8.4 Anticipated Constraints

For students enrolled and accepted into the graduate studies program of UOZ, the lack of seminars, workshops, and faculty advisors will greatly hinder, if not prevent, the completion of degree studies. Most of the students lack the necessary background in research methods required to conceptualize the process.

1.8.5 Conclusions and Implications for the Future

At the onset, it was recognized by USAID and the IEES leadership that the inclusion of Zimbabwe in the project would be somewhat different than other countries due to the ongoing BEST Project. However, it was felt that the IEES could make a strong contribution in strengthening the evaluation, planning, and management capacities of the two ministries involved in the BEST program. In addition, it was also felt that the IEES could make a further contribution in the graduate studies program at UOZ with such studies impacting on the BEST program as most research and evaluation performed by the graduates funded under the IEES studies would be directed at the BEST Program. Differences of opinions and views regarding collaborative IEES activities in Zimbabwe have limited the contributions made by IEES, and future work by the IEES Project does not at this time seem feasible.

1.9 ACHIEVEMENTS, PROBLEMS ENCOUNTERED, AND LESSONS LEARNED

IEES Project activities in collaborating countries have resulted in important achievements during the first half of the Third Project Year. The impact of the IEES long-term, systemic approach to improving educational efficiency in these countries is detailed in the preceding country reports. This impact is summarized below.

- In Botswana, an innovative joint Master's degree training program, sponsored by FSU and the University of Botswana, has been developed by JSEIP and approved for 10-15 Botswana participants. By reducing the out-of-country training time, this program offers the degree training to greater numbers of participants and reduces the time away from critical responsibilities in the educational system. The JSEIP project continues to strengthen the Junior Secondary Education system in Botswana, and IEES-sponsored computer training has established an Education Management Information System for the Unified Teaching Service, Department of Nonformal Education, and the Busaries Department.
- In Haiti, the start-up of the Incentives for Improving Basic Education (IIBE) Project and the development of the initial Country Implementation Plan for IEES Activities mark the beginning of collaborative work with Haitian counterparts which systematically builds upon the recommendations of the EHR Sector Assessment conducted by IEES in late 1984.
- In Indonesia, the development of the Indonesia Country Implementation Plan for IEES Activities and the recent achievements of the Education Policy Planning (EPP) Project are carefully building upon the widespread impact of the EHR Sector Review completed by IEES in late 1985.
- In Liberia, after a year of inactivity, IEES has completed an integration study with potentially significant impact on primary education throughout the country. The study presents strategies for integrating the World Bank-funded textbook provision project with the Improved Efficiency of Learning (IEL) Project in order to maximize investments in the sector. This assistance marks the beginning of further IEES collaboration with Liberia and will be followed by assistance with Five-Year Plan development and a Sector Assessment Update activity in 1987.
- In Nepal, the development of the Nepal Country Implementation Plan for IEES Activities has specified the collaborative efforts for improving educational efficiency in that country and has led to an agreement with Nepal counterparts to undertake a sector assessment which could provide systemic analyses for long-term, comprehensive planning. The IEES RTA has continued to support the Radio Education for Teacher Training (RETT) Project, assist the Ministry of Education and Culture with the development of an Education Management Information System, and strengthen donor coordination for more effective investments in the education sector.

- In Somalia, IEES has proposed a major strategy for improving the quality of primary education. This strategy builds upon the recommendations of the earlier Somalia EHR Sector Assessment (January 1984) and the Quality Enhancement Study (August 1985) and operates within the constraints of existing Ministry of Education resources. IEES technical advisors are now assisting Ministry counterparts with the implementation of this materials-based strategy.
- In Yemen Arab Republic, IEES has continued to support the design and implementation of an Education Management Information System. This system will support the development of databased decisionmaking processes within the Ministry of Education. IEES has developed a systematic plan of activities in Yemen based upon the recommendations of the EHR Sector Assessment conducted in late 1984. Assistance has also been provided for the design of a primary curriculum project which has the potential to improve education throughout the country.
- In all collaborating countries, the IEES Policy Research Initiative has completed initial plans with country research representatives to lay the groundwork for in-country research activities which will begin in early 1987. Counterpart teams for the three research areas of Education Management Information Systems, Teacher Incentive Systems, and Support of Local Capacity have developed conceptual frameworks and research management plans for effectively carrying out their research tasks. These research teams will present their initial plans at the Second IEES International Conference in February 1987.

Donor collaboration in all countries has been an integral element of IEES strategy for improving the efficiency of educational systems. The need for maximizing the scarce resources available in developing countries dictates that IEES work closely with government, USAID Missions, and other donor agencies. The IEES Project stresses the leadership of national governments in coordinating all donor activities and supports government efforts to improve the coordination of donors. Evidence of the success of IEES efforts in improving donor coordination can be seen in recent events in collaborating countries:

- In Haiti, IEES has effectively coordinated Catholic, Protestant, and other private sector agencies in supporting the design and initial implementation of the IIBE Project which will offer basic education opportunities to children throughout Haiti. This multi-agency support has permitted the IIBE Project to move ahead to start-up even through the turmoil of the current political period.
- In Indonesia, the implementation plan recently developed by IEES for improving educational efficiency was expanded at government request to include assistance with the coordination of other donors in the education

sector. This plan now offers opportunities for interministerial, intraministerial, and donor agency collaboration, as well as cost sharing.

- In Liberia, IEES has recently worked with Liberians to complete a study which recommends strategies to integrate the World Bank textbook provision project with the USAID IEL Project, thus offering the opportunity for maximizing the investments of both projects for improving both the quality and accessibility of primary education.
- In Somalia, the strategy for improving primary education within existing Ministry resources which IEES developed during this report period was the result of close coordination with the donor community in Somalia, as well as collaboration with Somali counterparts. Strong support for the strategy was offered by USAID, UNICEF, and UNHCR. The strategy permits the Ministry of Education to improve primary education dramatically while operating within existing commitments of these agencies. The IEES RTA has supported Ministry leadership in coordinating the donor community since arriving in-country in May 1985.
- In Nepal, donor coordination has proven critical for sustaining efforts to improve educational efficiency. IEES provides technical assistance for design and procedures development of the World Bank School Mapping Project for the Ministry of Education and Culture. This collaboration is assisting the Ministry in building an information base and identifying criteria for both new school sites and the consolidation of existing schools. The IEES RTA in Nepal regularly coordinates IEES activities as detailed in the country plan with other donors in the education sector.
- In Togo, IEES has collaborated with the World Bank to develop a training program for providing decisionmakers with timely and accurate data for policy analysis. This collaboratively-developed program has now been field-tested, revised, and is being prepared as an IEES Training Manual for dissemination to other developing nations.

The development of strong support for IEES activities from the USAID Missions has progressed during this report period. The participation of Mission personnel from collaborating countries in the First IEES International Conference marked a turning point in Mission participation in the overall direction of the IEES Project. The Second IEES International Conference in February 1987 will again offer opportunities for this participation. In addition to this opportunity to participate in the complete scope of project activities, Mission staff are involved in the development of the Country Implementation Plan for each country and thus have gained a sense of the significance of IEES strategy for systemic, long-term planning.

2.0 CENTRAL CONSORTIUM OPERATIONS

2.1 PLANNING, MANAGEMENT, AND COORDINATION

IEES Project planning, management, and coordination are functions of the International Steering Committee (ISC), the Executive Management Committee (EMC), and the central consortium staff at FSU. During this report period, the tasks of policy direction and planning for consortium activities were accomplished by two formal meetings of the EMC September 17-19, 1986, at SUNYA and December 9-10, 1986, in Washington, D.C. IEES central consortium staff at FSU was responsible for central office operations and ongoing management and coordination of project activities. This section discusses the accomplishments of these groups, the constraints encountered, and projected activities during the remainder of the Third Project Year.

2.1.1 International Steering Committee

The ISC did not meet formally during this report period, but members were informed of current project plans and activities and were consulted on action items, such as the activities of the IEES Policy Research Initiative, which took place during this period, and the planning for the Second IEES International Conference which is scheduled during the second half of the Third Project Year (February 1987).

2.1.2 IEES Executive Management Committee

Two meetings of the IEES Executive Management Committee (EMC) were held during this report period. The proceedings of these meetings are provided below.

2.1.2.1 EMC Meeting on September 17-19, 1986

A meeting of the Executive Management Committee (EMC) of the Improving the Efficiency of Educational Systems (IEES) Project was held September 17-9, 1986, at

the State University of New York at Albany (SUNYA). Present at the meeting were Robert Morgan of Florida State University (FSU), Douglas Windham, Frances Kemmerer, and David Chapman of SUNYA, Victor Cieutat of the Institute of International Research (IIR), Willie Howard of Howard University, and Joan Claffey and David Sprague of the Agency for International Development (AID). Natalie Waschull of SUNYA attended and served as recorder for all sessions.

The meeting discussed eight items:

1. Update: Education Directions at AID/Washington
2. IEES Conceptual Directions and Future Planning Needs
3. IEES Coordination with Other AID Projects
4. Review of IEES Concept Papers (Monographs)
5. Review of IEES Sector Assessment Training Manual
6. Policy Research Initiative
7. Reports of Countries Participating in IEES
8. Planning for the Second IEES International Conference

2.1.2.2 EMC Meeting on December 10, 1986

A meeting of the Executive Management Committee (EMC) of the Improving the Efficiency of Educational Systems (IEES) Project was held December 10, 1986, at the offices of AID/Washington. Present at the meeting were Robert Morgan and Jack Bock (FSU), David Chapman, Frances Kemmerer, and Douglas Windham (SUNYA), Victor Cieutat and Sivasailam Thiagarajan (IIR), Willie Howard (Howard) and Joan Claffey and Mark Rilling of AID/S&T/ED. Natalie Waschull of SUNYA attended and served as recorder for all sessions.

The meeting discussed six items:

1. IEES Policy Research Initiative
2. Review of IEES Activities in Collaborating Countries
3. Review of IEES Publications and Their Present Status

4. Review of IEES Project Budget
5. Planning for the Second IEES International Conference
6. Review of Bilateral Project Budget Limitations

2.1.3 Coordination With Other AID-funded Projects

IEES maintains close coordination with two other AID-funded projects, Basic Research and Implementation in Developing Education Systems (BRIDGES) and Radio Learning Project (RLP). This coordination is maintained both by meetings in the U.S. to discuss common concerns and by coordination of work within collaborating countries.

IEES and BRIDGES representatives met at AID/W on October 2, 1986, to review and coordinate the operations of the two projects. BRIDGES is currently engaged in general reviews of six research topics, with three of these nearing completion. Some of this work has been assigned to research institutes in three cooperating countries: Chile, Thailand, and Kenya. When this research survey phase is completed, BRIDGES Principal Investigator (PI) Noel McGinn of the Harvard Institute for International Development estimates that more than a thousand research abstracts will have been generated. IEES PI reported on IEES activities and the representatives discussed to impact of the IEES Policy Research Initiative. Gary Theisen of AID/W S&T/ED, Contract Officer for BRIDGES, noted that, while there are similarities between the goals of BRIDGES and IEES, each emphasizes a different approach. BRIDGES focuses on knowledge-building research to affect national educational policy, while IEES engages in a broader range of Sector Assessment-based technical assistance activities which include a research component.

Coordination of the the two projects within Yemen Arab Republic and Indonesia, two with which it appears that IEES and BRIDGES will be collaborating, was discussed in detail. The group agreed that it was essential to exchange regularly

project information to maximize the synergy of the two projects and to avoid duplication of efforts. Further coordination meetings were tentatively suggested for early 1987.

IEES and RLP staff worked collaboratively in early 1986 to develop a concept paper for improving the quality of primary education in Somalia, a country in which both projects are involved in exploring strategies to assist the Ministry of Education. The materials-based strategy proposed by IEES in that paper built upon the recommendations of the IEES Quality Enhancement Study of August 1985 and discussed the possibility of an interactive radio instructional component as one option in Somalia.

The IEES team scheduled to assist the Somali Ministry of Education in August 1986 will coordinate closely with RLP Director Thomas Tilson of the Education Development Center who will be in Somalia at that time for further discussions of possible interactive radio strategies for improving primary education.

2.1.4 Technical Support Services

Technical support services in support of project field activities to improve educational efficiency in collaborating countries are discussed in detail in the sections of this report describing country activities (Sections 1.1-1.9). In addition to these field activities, also detailed in the Country Implementation Plans annually revised for each country, four major technical support activities have been carried out during this report period.

IEES Monograph on Evaluation of Educational Efficiency. The revised document by David Chapman of SUNYA in cooperation with Douglas Windham also of SUNYA was submitted to Project CTO at AID/W for review and approval prior to publication and dissemination. The monograph represents a significant contribution to the literature of evaluation of educational development activities.

IEES Monograph on Educational Efficiency Indicators. Douglas Windham of SUNYA is preparing this concept paper, with a new completion date in June 1987. This monograph was initially the responsibility of Stephen Klees and others of FSU, but dates for completion were not met.

Development of Policy Research Topic Outlines. A major support activity during this report period was the development of research topic outlines for the three research areas of the IEES Policy Research Initiative (PRI). As the PRI is described in detail in Section 2.3 of this report, these topic outlines will not be described here. Materials developed for these research topics are attached to this report in Appendices VII, VIII, and VIX.

Training Manual EHR Sector Assessment. During this report period, the first draft of the IEES "Education and Human Resources Sector Assessment Training Manual" was completed. This manual was produced by Victor Cieutat and Mary Pigozzi of IIR and is intended to support the efforts of counterparts in collaborating countries to carry out education sector analysis following the completion of IEES assistance. The draft manual will be introduced at the IEES Second International Conference during the next report period (January 1987). Following receipt of comments from AID/W and project personnel, it will be revised for final approval and distribution. This document is further described in Section 2.4 of this report.

Training Manual for Databased Decisionmaking and Policy Analysis. This manual was produced as the result of IEES collaborative work with the World Bank in Togo. The materials and the field testing of the manual are described in detail in Section 2.4 of this report.

2.1.5 Ongoing Management and Coordination

During this report period, the monitoring systems developed during the previous project year were implemented and refined to support the increasingly

complex tasks of backstopping three major field projects, Junior Secondary Education Improvement Project (JSEIP) in Botswana, Education Policy and Planning (EPP) Project in Indonesia, and Incentives for Improving Basic Education (IIBE) Project in Haiti, as well as Resident Technical Advisors in Nepal, Somalia and Zimbabwe. The range of activities undertaken by these projects in order to accomplish their objectives is described in the country report 3 (Sections 1.1-1.9). The flow of information and the critical need for rapid response to requests for field support, as well as the routine work of reporting and facilitating required forms and procedures to meet operational requirements of AID/Washington, USAID Missions, collaborating countries, and IEES Consortium institutions, require that project management function smoothly and efficiently. This section describes the steps taken and the systems developed to achieve this goal during this report period.

2.1.5.1 Operationalization of the Country Coordinator System

The IEES Executive Management Committee instituted a Country Coordinator system for monitoring all IEES activities in collaborating countries at their meeting in February 1986. The committee designated one individual from the consortium for each of the eight countries collaborating with IEES to improve educational efficiency. Terms of reference were developed for the Country Coordinators that specified their coordination functions and responsibilities. The following IEES staff served as Country Coordinators during this report period:

Botswana	Robert Morgan
Haiti	Peter Easton
Indonesia	John Bock
Liberia	Victor Cieutat
Nepal	John Mayo
Somalia	David Chapman

Yemen Arab Republic Douglas Windham

Zimbabwe

Robert Morgan

These individuals are tasked with the following responsibilities for the countries assigned:

Information Gathering. The Country Coordinator is responsible for receiving, analyzing, and storing all information concerning IEES activities in each collaborating country. Monthly field reports, trip reports, products of research and analysis, cable and letter messages from the Mission or Government are the key information elements received by Coordinators. This information is collected by the Educational Efficiency Clearinghouse at FSU and disseminated to Country Coordinators and other consortium personnel.

Development of Country Implementation Plans. Country Coordinators are responsible for annually revising the Country Implementation Plan for IEES Activities in each country. This requires monitoring of present activities as described in the existing plan and close coordination with in-country counterparts and USAID Mission personnel in order to alter or adapt the Plan to meet the changing needs of collaborating countries. These annually revised Country Implementation Plans are used to prepare the IEES Annual Plan, coordinated by Jerry Messec of FSU. Country report sections of this document are assigned to Country Coordinators who base their reports upon the approved Implementation Plan for each country as well as the result of their collaboration with country decisionmakers and Mission personnel. The result of this process is that IEES Annual Plans can be produced which are far more accurate and comprehensive in scope because they are written by the IEES personnel closest to and most involved in actual in-country accomplishments.

Monitoring and Reporting Responsibilities. The Country Coordinators' primary monitoring responsibility is to ensure that the activities approved in the Country Implementation Plan are carried out on schedule unless prior agreement for cancellation or postponement is reached. This task is coordinated with the project monitoring role of Deputy Director Milton Adams of FSU. Regular reporting duties of Country Coordinators include the following:

- **Annual Plan.** This document both analyses the impact of IEES activities in collaborating countries and also presents detailed plans for achieving project objectives with the next project year. Country Coordinators are annually assigned the task of preparing sections reporting on the country of their responsibility and coordinate this work with Jerry Messec of FSU.
- **Semi-Annual Progress Report.** Country Coordinators also are responsible for this six-months report of IEES accomplishments and projected activities within collaborating countries. Jerry Messec coordinates the production of this document.
- **Document Collection for the Educational Efficiency Clearinghouse.** Country Coordinators are responsible for ensuring that all relevant documents produced (or collected from other sources) are provided to the Educational Efficiency Clearinghouse at FSU. This ensures that the project maintains an accurate record of accomplishments and impact in collaborating countries and also allows the Clearinghouse to disseminate documents to countries, USAID Missions, IEES Consortium members, or other interested professionals.
- **IEES Communique Reports.** The IEES intraconsortium newsletter, the **IEES Communique**, was expanded during this report period to contain much more information on in-country accomplishments and projected activities in order to keep all consortium members and consultants informed concerning the growing number of project activities. Country coordinators are regularly requested by **Communique** Editor Jerry Messec to prepare reports on recent accomplishments and plans in collaborating countries.

2.1.5.2 **Implementation of the IEES Management Information System**

During the previous report period, significant changes were made in the Management Information System (MIS) created by project management to provide timely and accurate information to inform the many critical decisions for project direction in order to achieve its objectives. Components of this MIS include the following:

Field and Trip Reports. These important sources of information concerning project accomplishments, problems, and projected plans are critical to the planning and monitoring functions of central management. In order to ensure that all field and trip reports contain the information necessary for project planning, guidelines were developed during the previous report period. These guidelines have now been distributed to all consortium personnel and consultants and have resulted in improved information flow throughout the consortium. The new routing procedure for these reports, which was established, has also proven to facilitate the timely processing and distribution of all reports and provided a check on the quality and consistency of the reports.

This routing procedure now requires all IEES personnel to submit trip reports directly to Deputy Project Director Adams for review control and distribution. This procedure replaced a much slower routing through Project PI and Project Director.

IEES RTAs (including COP/RTAs for the three field projects now in operation) are required to submit copies of all field reports both to the Country Coordinator and to Adams. Previously, all RTAs were required to submit monthly reports on all in-country activities. During this report period, this requirement was changed to only six-months reports. Messec supplied a format for this report which corresponds to the format of the Semi-Annual Progress Report. This permits information directly from the RTAs field reports to be included in the semi-annual documents which Messec prepares at FSU. This change in field reporting requirements greatly lessens the reporting burden of increasingly busy RTAs while improving the flow of field information into project reports.

Project Status Updates. Project Status Updates are a summary of all project achievements and commitments and are regularly produced by FSU staff for project management use. They provide staff with timely information regarding the current

status of all commitments, scheduled activities, and action requirements with respect to four related sets of objectives: contract specifications, country implementation plans, progress report projections, and additional recent commitments. The Updates are now regularly produced and widely used by IEES project management.

Activity Data Sheets for Monitoring Project Activities. Activity Data Sheets were designed to improve management capabilities of monitoring the progress of field activities in collaborating countries. Harvard Total Project Manager software is used to generate PERT and GANTT charts which can be easily modified and updated to reflect the actual status of project activities. This process also allows project management to identify those component activities which regularly tend to fall behind schedule either because the level of work required was underestimated or because the scope of work was inadequately defined.

The IEES Communique. The IEES intraconsortium newsletter, The IEES Communique, has been developed during this report period into an important part of the MIS. The newsletter has been greatly enlarged and now includes information regarding the activities of two other centrally-funded AID education projects, BRIDGES and the Radio Learning Project, in order to improve the coordination of all three efforts. Response to recent issues of the Communique indicate that it serves an important function of informing all consortium members and consultants of critical developments in both field and central project activities.

2.1.6 Anticipated Constraints

Budgetary constraints have caused central project staff to spend greater amounts of time providing technical assistance in support of in-country field activities and this is expected to continue as future budget cuts are made. The MIS described above has proven capable of providing a adequate level of monitoring and reporting even within these constraints of project management. Now that three

field projects are operational, this system must be carefully refined to ensure that it can perform these critical project functions satisfactorily.

2.1.7 Projected Activities

During the next report period, central office staff will further refine the MIS now in place, both to improve its performance and to lessen the monitoring and reporting burden of field personnel and Country Coordinators.

Of particular concern is the redundancy of reporting required in the past for the simultaneous June production of both the Semi-Annual Progress Report and the Annual Plan for the following year. Central staff is currently drafting proposals for satisfying contractual reporting requirements while reducing both redundant reporting and the time-consuming production burden of central staff.

2.2 KNOWLEDGE BUILDING AND NETWORKING ACTIVITIES

2.2.1 Background

The goal of the IEES Knowledge Building and Networking Program is to build and share a body of knowledge on educational development derived from the experience of implementing the IEES Project, which will be relevant to Third World planners and decisionmakers. The IEES Project is well-suited to address this need for more precise information and better empirical data about what works in the field of International Development Education. Its international scope and its ten-year project life provide the Project with the opportunity to examine the generalizability of lessons learned and the long-term impact of strategies in different cultural settings and under differing sets of country-specific conditions.

This educational knowledge is generated through such activities as sector assessments, research initiatives, special studies, and the experience of implementing field activities. It is disseminated by way of three strategies

discussed in this section. These are: The IEES Educational Efficiency Clearinghouse, Networking Activities, and Publications.

2.2.2 IEES Educational Efficiency Clearinghouse

The IEES Educational Efficiency Clearinghouse, which is located at FSU, functions as the central repository for all IEES project documents and other materials related to project activities. The Clearinghouse provides documentary support by disseminating these materials to IEES Consortium members, AID/Washington and USAID Missions, IEES Resident Technical Advisors, IEES International Steering Committee members, and interested institutions and professionals, both in the United States and internationally (Figure 2.2-1).

In-country Resource Centers. During this reporting period, the IEES Clearinghouse established In-Country Resource Centers (IRC) in three countries collaborating with IEES to improve educational efficiency. These IRCs were discussed at the International Steering Committee Meeting in May 1986, and have now been organized in the following countries: Botswana, Somalia, and the Yemen Arab Republic. IRCs will be established in the other collaborating countries (Haiti, Liberia, Indonesia, and Nepal) pending the selection of site and management.

IRC holdings are comprised of country-specific and IEES Project documents, and also include materials which relate to national education priorities (see Appendix IV for an itemized IRC inventory list and IRC addresses). As new project documents and other materials are produced, they are systematically disseminated to the In-country Resource Centers.

IEES Clearinghouse Outreach Activities. During this report period, the IEES Clearinghouse has concentrated its holdings which support project field activities and improving its dissemination network of IEES documents and related materials. Activities in support of these efforts are discussed below.

Production and Distribution of IEES Documents. The following IEES documents have been produced recently and disseminated to the IEES network during this report period:

- Botswana EHR Sector Assessment Update (March 1986)
- IEES Semi-Annual Progress Report (June - December 1985)
- IEES Nepal Country Workplan (June 1986)
- The Enhancement of School Quality in Somalia (August 1985)

Other IEES documents projected for completion and/or awaiting AID approval within this reporting period are:

- IEES Project Plan: Year Three, June 1986 - June 1987
- IEES Semi-Annual Progress Report, December - June 1986
- Indonesia EHR Sector Review
- Indonesia Country Implementation Plan for IEES activities
- Haiti EHR Sector Assessment
- Haiti Country Implementation Plan for IEES Activities
- IEES Monograph: The Evaluation of Efficiency in Educational Development Activities

For list of documents available for distribution, see Appendix V of this report.

Research Support Activities. In order to provide the IEES network with pertinent literature on key educational issues, the Clearinghouse conducts information searches and provides support materials on request. The Clearinghouse has supported the IEES Policy Research Initiative with searches and materials in the three research areas:

- Educational Management Information Systems
- Teacher Incentives
- Decentralization and Localization

The Clearinghouse has provided support materials to consortium members tasked with the Policy Research Initiative and continues to provide updated lists of recent acquisitions on these topics. (See Appendix for IEES Policy Research Initiative support materials.) Consortium members involved in the Policy Research Initiative have been requested to submit their support materials to the Clearinghouse so that a complete set of reference materials may be centrally located and disseminated as requested.

Non-IEES Affiliated Requests. In order to make IEES documents available to a larger audience of educational organizations, the IEES Clearinghouse has broadened its distribution of major project documents to include donors such as Unesco, IPE, IREDU, UNICEF, IDRC, Overseas Development Administration, Canadian International Development Agency, and others upon request. The IEES Clearinghouse encourages these organizations to reciprocate by providing copies of their documents for use in support to IEES Project Activities to improve educational efficiency in collaborating countries. This enlarged network of information exchange benefits both IEES Activities in support of national educational goals in many countries and the creation of a larger knowledge base of development activities.

2.2.3 Networking

2.2.3.1 Second IEES International Conference

The Second International IEES Conference will be held in Denpasar, Indonesia, from February 15-20, 1987. IIR is tasked with arrangements for this conference, including the initial design of the program, in association with FSU and S&T/ED. A draft of the program has been reviewed within the consortium and by S&T/ED and has been revised into final form.

2.2.4 Publications

Monograph Series. During this report period, David Chapman in cooperation with Douglas Windham submitted a draft of monograph entitled The Evaluation of Efficiency in Educational Development Activities. It examines the concept of efficiency, the nature of evaluation, the criteria, standards, and indicators of educational efficiency, the process of evaluation, and the evaluation of education in the developmental context.

The monograph examines selected issues in the design and conduct of program and project evaluation in developing countries and focuses on the evaluation of international technical assistance programs that have the enhancement of educational efficiency as a goal. The objective of the monograph is to improve the practice of evaluation in educational technical assistance programs where the issues of allocative and technical efficiency in the educational system are paramount.

The document is intended for use by evaluators, program planners, administrators, and supervisory personnel in both host government and international donor agencies.

The monograph is divided into five parts. In Section 1 a brief introduction is made of the evolving role of efficiency criteria in the evaluation of educational systems. Section 2 provides detail on the nature of the efficiency concept as it is applied within educational programs (i.e., internal efficiency), its operationalization for the purpose of evaluation, and the special efficiency issues that exist in the developing world. The section concludes with a discussion of the major constraints on educational efficiency enhancement efforts in schools in developing nations.

Section 3 discusses the nature of the evaluation process (as distinct from research). An emphasis is placed on the meaning of evaluation in terms of context

and timing and the crucial role of the evaluator in determining the success of the evaluation process. Section 4 expands the discussion to examine the critical role of criteria, standards, and indicators in designing and conducting evaluation studies. A discussion of the special problems of developing and applying evaluation criteria within the international technical assistance system concludes Section 4. Section 5 then discusses basic procedural steps common to all evaluations. Section 6 focuses on the evaluation issues that are most troublesome in dealing with the topic of efficiency enhancement in educational assistance programs in developing nations. The monograph concludes with a brief statement of summary interpretations and recommendations.

An IEES Monograph, on the Concepts and Measures of Educational Efficiency, originally undertaken by FSU staff, will be completed by Windham at SUNYA. It examines the issues posed by the application of concepts and measures of efficiency to the field of education, particularly in the context of development education.

This monograph was originally the responsibility of Stephen Klees and other FSU staff. These authors presented an outline of the monograph to IEES consortium members in April 1986, and had scheduled completion for September 1986. Due to other responsibilities, however, Klees was not able to complete work on the monograph within this timeframe. Because the monograph was needed to provide conceptual guidance for IEES, the consortium requested that Windham complete this work.

IEES Training Manuals. The first IEES Training Manual, Training Manual for Sector Assessment Methodology, was completed during this report period by Victor Cieutat and Mary Pigozzi of IIR. This manual will be the focus of discussions regarding sector assessments at the International Conference and a French language translation will be available for French-speaking conference participants. This manual is discussed in detail in Section 2.4 of this report.

The second training manual, Training Manual for Databased Decisionmaking, is being finalized, based upon the collaboration training work with the World Bank and the Government of Togo. This manual and its development is also discussed in Section 2.4 of this document.

Field Publications. During this report period, central staff at FSU carried out the final revisions and preparation for publication of two large project documents, the Indonesian EHR Sector Review and the Haiti EHR Sector Assessment. Both documents were produced in 8.5" x 11" format at the request of the respective governments and bound in ring binder format with major subsections grouped together. The Indonesian Government, which received review copies in this format, reported that considerable economies could be achieved by this publishing format, which allows only key sections to be distributed to interested agencies.

IEES Technical Packages. Two technical packages, designed to assist counterparts in collaborating countries, were reviewed by specialists during the previous reporting period, and have been subsequently revised. The Technical Package on Distance Education is now being prepared for consortium review. The Technical Package on Microcomputers in Planning is now being considered as a possible supplement to microcomputer training manuals which have been produced in the field as the result of IEES activities. These include the EPP-produced microcomputer training manuals and the World Bank/Togo-produced Training Manual for Databased Decisionmaking. A third technical package, examining the key issues of improving educational efficiency, has also been prepared and will be distributed for review during the next report period.

2.3 IEES POLICY RESEARCH INITIATIVE

2.3.1 Background

In January 1986, Douglas Windham formulated a proposal for an IEES Policy Research Initiative (PRI). A draft proposal was submitted to the Executive Management Committee and approved, with modifications, for submission to the International Steering Committee (ISC). In its May 1986 meeting in Tallahassee, the ISC approved both the content of the proposed PRI and the budget requirements for a two-year activity.

The basic design for the IEES Policy Research Initiative (PRI) calls for collaborative research teams conducting coordinated projects on three topics, Education Management Information Systems Teacher Incentive Systems, and Development of Local Capacity. The detailed research proposal was based upon three policy topics, each to be researched in three IEES countries.

To ensure both collaboration and coordination of the research topics, it was proposed that a specific organizational structure adaptation be made in the IEES management system. The Principal Investigator (PI), in coordination with the Cognizant Technical Officer (CTO), is the individual responsible for initiation, conduct, evaluation, and dissemination activities for the PRI.

The PRI structure recognizes the need for a major part of each of these tasks to be delegated to a Project Research Coordinator (PRC) who has the ongoing, day-to-day responsibility for the policy research program. This individual remains directly responsible to the PI and, through him, to the Executive Management Committee (EMC). Douglas Windham of SUNYA, has been designated as the PRC.

The PRC, with approval of the full EMC, has appointed IEES Consortium personnel as team leaders for each of the topical research teams. It is the responsibility of the PRC, as well as each of the Project Team Leaders (PTLs), to

ensure that administrative coordination of the individual topical research agendas is maintained.

An important distinction is made between the administrative accountability structure and the operational structure for the design and implementation of research activities. The project teams will be administered for IEES within a structure wherein the PTL (with assistance from other IEES research associates) is responsible for coordination of the topical research activities in each of the countries that have agreed to join IEES in conducting research on that particular topic. The Country Team Leaders (CTLs) have been nominated by the collaborating countries and the IEES Country Coordinators for each country. The Country Research Teams are made up primarily of host country personnel but may, at the request of the CTLs, include IEES Consortium researchers when they are needed to fulfill specific duties.

A committee, made up of the PTLs and each of the CTLs working on that topic, operates as the agency responsible for all methodological and operational issues related to the topic. Each CTL reports to this committee on research activities in the respective country and receives the committee's comments and suggestions. In this manner, the committee will help assure the comparability of results across the countries working on the same topic, while assuring the individual country teams of the latitude necessary to adapt the research to their particular environment and to their needs for policy information. This structure also maximizes the on-the-job experience to be gained by host country personnel not just as counterparts in implementation, but also in the design and analysis activities of the policy research project. While the CTLs and PTLs are jointly responsible for quality control, the IEES Project staff must keep in mind that these research activities have the explicit goal of increasing the host country research capacity as well as the goal of producing policy-relevant information and scholarly contributions.

2.3.2 Achievements During Report Period

Since June 1986, the IEES Policy Research Initiative has begun with finalization of country-topic relationships, identification of assistant Project Team Leaders (PTLs) and of Country Team Leaders (CTLs), and initial meetings of two of the three policy research teams. The final structure and related personnel for the Policy Research Initiative are as follows:

Educational Management Information Systems

David Chapman (SUNYA) - PTL

Jerry Messec (FSU) - Associate PTL

Madhup Dhungana - CTL, Nepal

Kassim Berihe - CTL, Yemen Arab Republic

Ali Hassan Gaal - CTL, Somalia

Teacher Incentives

S. Thiagarajan (IIR) - PTL

Frances Kemmerer (SUNYA) - Associate PTL

Albert Coleman - CTL, Liberia

Hussein Mohamed Said - CTL, Somalia

Noman Saed Alaseadi - CTL, Yemen Arab Republic

Support of Local Capacity

Lorenzo Moris (Howard Univ.) - PTL

Jerry Strudwick (SUNYA) - Associate PTL

Romli Suparman - CTL, Indonesia

Patrick Molutsi - CRC, Botswana

Jean-Marie Leroy - CRC, Haiti

2.3.2.1 PRI Administrative Policy Guidelines

In October 1986, all PTLs were informed by PI Robert Morgan of the following administrative policies concerning implementation of the Policy Research Initiative:

1. The research activities will almost certainly vary from country to country, which means that each country will need to have its own detailed scope of work and budget. Budgets should include any salary or stipend paid to the local researcher and any assistants he or she may have, typing, reproduction cost, local travel, and any materials and supplies. Also, the overhead, if any, of the local institutions should be included. Deliverables should be specified to the degree possible. With this information, subcontracts can be entered into with the local institutions for the needed in-country research support.
2. All such arrangements must be approved in writing in advance of starting work by the FSU and AID/W contract and Grant Offices. This means that, as work with local counterparts in-country on these things proceeds, they should be made fully aware that prior to any implementation or spending, approvals have to be obtained.
3. Regarding salary arrangements for the local researchers and any other local personnel, the same procedures as for hiring any other consultant have to be followed. Resumes and completed biodata forms must be obtained and their daily pay rates have to be approved. If a daily rate is to exceed 1/260th of the documentable professional annual income, or if it exceeds the locally established Mission rates, it also requires written approval of the USAID Mission Director.
4. In order to transfer funds to the country to support the research program, certain legal measures are required. In some instances, a subcontract will be appropriate and in other cases different approaches may be necessary. Following are four possible mechanisms for transferring funds:
 - Subcontract with Local Institution. This is probably the way the PRI will operate in Botswana. After the scope of work, timetable, deliverables, and budget are agreed upon the field and approved in the U.S., a subcontract will be executed with the University. This approach can be used in instances where the key local researcher is affiliated with some legally established organization which has been approved by the local government.
 - Subcontract with the Ministry or one of its Divisions. This may be more complicated. AID C&G will rule shortly about subcontracting to a government agency. If permissible, then the PRI would follow the same approach as if it were subcontracting to a university or research institute.

- **Transfer Budget-Resident Technical Advisor.** Where it is impossible or difficult to subcontract to a local entity, PRI can task the RTA to disburse funds to the research effort. Dollars would be added to the RTAs revolving account for this purpose. One potential problem of course is that IEES does not have RTAs in all collaborating countries.
 - **Personal Services Contract.** Another alternative, and in most cases, the least desirable, would be to execute a Personal Services contract with the local researcher just as contract the anticipated support costs.
5. PTLs returning from field meetings should be prepared to recommend which of these options is appropriate for each country collaborating in the PRI. PTLs may also recommend some other viable approach. It may be cheaper, quicker, and more efficient to have FSU execute the subcontracts. Following initial field meetings, PTLs and project management can decide together how to handle this.
 6. Though the PRI is a two-year effort, it is prudent to limit agreements with the local researchers to one year at a time, at least in terms of hard commitments to funding. This permits the PRI to keep options open and make any indicated mid-course corrections.

2.3.2.2 Initial Meeting of the PRI Research Teams

Educational Management Information Systems. An initial meeting of the Educational Management Information systems (EMIS) policy research team was held in Kathmandu, Nepal, between November 10-19. In attendance, in addition to the research team, were Douglas Windham, Project Research Coordinator, Barbara Butterworth, IEES RTA for Nepal, and Bal Gopal Baidya, Director of the New Era consulting firm. Also participating in specific sessions were Jean Meadowcroft of USAID Nepal, Prachanda Raj Suwal, Head of the Nepali Ministry of Education and Culture's Manpower and Statistics Unit and Ishware Upadhyay, former Director of Planning and recently appointed as Director of Nepal's Examinations Council. Upadhyay, in his former role as IEES Steering Committee representative, had been a major force in urging Nepal participation in EMIS research.

During the meetings, each of the three CTLs prepared draft proposals, work schedules, and budgets. Copies of briefing materials for the meeting are included in Appendix VII. These will be revised and it is intended that approval of work

plans and budgets will occur by the time of the IEES International Conference in mid-February 1987.

Nepal Participation in the EMIS Study. New Era, a private consulting firm, was identified by the Nepal MOE and IEES RTA as the most appropriate group to conduct the EMIS policy research, based on written proposals solicited by the MOEC from interested groups and ministry agencies. New Era has a staff of about 35 people and a history of working on short-term research and development projects for donor agencies, Nepalese businesses, and government agencies. Madhup Dhungana, a research specialist on the Era staff, was selected by New Era to serve as Country Team Leader (CTL) and attended the planning meeting. Bal Gopal Baidya, Executive Director of New Era, also attended the Research Planning Meetings.

The Nepalese MOE recently has experienced a shift of key personnel that may have implications for conduct of the IEES DMS research. Seor Upadiyaha, the Director of Planning at the time the research initiative was started, was the person primarily responsible for selecting data management systems as a priority research area for Nepal. In October 1986, he was transferred to become the Director of the Examination Council within the MOEC. Suwal, Director of Planning and Statistics, met with the EMIS research group at the beginning of our meetings to discuss the MOEC interest in this research. On November 18, however, he too was transferred to the Examination Council, leaving his position vacant in the MOEC. The result of these shifts is that the MOE officials who selected and/or supported EMIS as the research emphasis for Nepal are no longer in the positions best suited to supporting the actual implementation of these research activities. Nonetheless, Upadhyay and Suwal strongly believe that research in this area is still important and that the research activities will receive support within the ministry. The extent of support will be investigated by the Nepal research team between now and the February meeting in Indonesia.

EMIS Research Planning Meeting. Chapman spent November 9-10 in Kathmandu preparing for the EMIS Research Team Meeting, meeting with New Era staff to discuss their role in coordinating the policy research for Nepal, and meeting with the USAID/Nepal Education officer to clarify the future role of the IEES Project in Nepal.

Kassim Berihe from Yemen Arab Republic arrived on November 10 as scheduled. Ali Hassan Gaal of Somalia, scheduled to be on the same plane, did not arrive. On November 12, information was received that Ali Hassan Gaal was delayed in Somalia due to Government business and would arrive November 14. While Gaal was delayed leaving Mogadishu by two days, the changes required in his travel itinerary delayed his arrival by four days.

The EMIS Research team meetings followed the Nepalese work day with work sessions from 10 a.m. to 1-5 p.m. The materials used to guide the discussion and planning process are attached in Appendix VII. November 11, the first day, was spent with:

- introductions,
- history and purpose of the IEES Policy Research Initiative,
- discussion of data collection and analysis use in Nepal and Yemen, and
- the identification of key issues affecting the use of data.

A summary of these issues was recorded, typed, and distributed at the next meeting session.

The Initial session stressed that:

- The research is conceived first and foremost as policy research relevant to MOE decisionmakers within each country. The needs of the MOE will define the particular focus on the inquiry;
- the second purpose of the research is the training it provides--both to the researchers and to policymakers who will use the research activity as a way to more carefully examine their own need for an use of a data system; and

- the third purpose of the research is to identify common issues and problems encountered in the design implementation and use of data systems. It is emphasized that the first two purposes would take precedence over the third.

The morning of November 12 was spent visiting a secondary school (grades 1-10) and a lower secondary school (grades 1-6 public and grades 7-8 privately sponsored) located in the suburbs of Kathmandu. The visits provided a opportunity to observe the pedagogy, availability of materials and textbooks, and the quality of facilities. We also discussed with each headmaster his role in providing data requested by the MOE as part of its national school data gathering efforts. In both cases, the headmasters had received the data-collection form, but had not completed or returned it.

The afternoon meeting of the EMIS research team meeting was devoted to discussing specific strategies for conducting research on data systems. Discussion centered on:

- the appropriateness of a case study methodology,
- key issues and specific variables that should be addressed in a case study of EMIS,
- varieties of data collection techniques,
- the flexibility available to each country research team to vary the focus and emphasis of the research within their country setting, and
- the stages through which the research activities were expected to progress.

The morning of November 13 was used as a work session in which Country Research Coordinators began developing their specific research agenda. Each country group worked alone. Butterworth and Chapman were present to answer questions and assist as needed.

The afternoon EMIS Research Team meeting focused on contracting procedures, logistics, and budget issues. New Era has previously held cost reimbursable contracts and has worked on AID projects before. They showed a high level of

sophistication regarding contracting procedures and already have necessary bookkeeping procedures established.

During the morning of November 14, the Nepal Research Team worked with Butterworth on developing a detailed workplan. Windham and Chapman worked with Berihe to provide further structure to his efforts to develop a work plan and to clarify issues of contracting and budgeting.

The EMIS research contract in Yemen will be with Sana'a University (SU). While SU has some experience handling fixed cost contracts, Berihe believes they have only limited experience with cost reimbursable contracts. He expressed concern about the extent of prior approvals, bookkeeping requirements, and limitations on shifting money among line items. He was particularly concerned about the extent to which USAID salary schedules for local personnel are realistic given the type of people he anticipates using and the ability to quickly adapt and alter budgets to accommodate the rapidly changing circumstances he anticipates in his research.

In the afternoon session, the Nepal country research team reported on the development of their research proposal, which consists of five phases outlined in Appendix VII. The Nepal research team will form an MOEC advisory panel both for advice on the conduct of the study and as a mechanism for keeping relevant government personnel and data users informed of the progress and findings of the research. New Era may also have a member of the MOEC Statistics and Planning Department as a consultant to help ensure access to MOEC data. The remainder of the meeting was devoted to further discussions of AID contracting procedures and their implications for record-keeping within each research project. At the end of the afternoon the research representatives toured the MOEC Planning and Statistics Office and held a further discussion with Suwal about data collection and analysis

procedures in Nepal. At present, the MOEC has only one microcomputer, which was provided last year by IEES.

On November 14, Ali Hassan Gaal, who had been delayed leaving Somalia, arrived. Windham and Chapman worked with Gaal during the Nepalese one-day weekend on November 15 to explain the purpose, organization, and strategy of the research initiative.

On November 16, Berihe outlined a tentative five-phase research proposal for EMIS research in Yemen, similar in general outline to the one proposed for Nepal. The Yemen research will involve an initial preparation phase, followed by an activity to map the data flow in the educational system from initial provider through intermediate level users to top level decisionmakers. The third phase will include both an analysis of the problems in data collection, analysis, and use and a study existing documents to identify what data are already available. A series of workshops will be conducted in phase four which will involve personnel from different levels of the education system and from other ministries and agencies which generate or use educational data. The purpose of these workshops is to clarify and confirm the problems and issues identified in the analysis of data flow and use, identify reasons and causes of the problems, and to suggest ideas for recommendations and solutions. These workshops will help assure that a wide constituency is involved in the research and dissemination.

The afternoon Research team meeting on November 16 further developed the Yemen and Somalia proposals. Butterworth assisted the Nepal team in developing a Gantt chart for the Nepal proposal, showing activity by time allocation across the two years of the research. During the second half of the meeting, Bal Gopal presented and explained this planning activity to Berihe and Gaal.

On Monday, November 17, a research team meeting convened at 10 a.m. during which Gaal presented and received comments on the preliminary design for the EMIS

research in Somalia. The preliminary budget of the Nepal research team proposal was reviewed. Their research design heavily front-loads the data collection activities with the result that their budget proposed the expenditure of 38 of the 50 thousand dollars during the first year of the project. Rescheduling the research activities to align with the availability of the project funds was discussed with team members.

On November 17, the Secretary of Education announced that Suwal, Director of Statistics and Planning for the MOE, was being transferred to work with Upaduyha at the National Examination Council. Suwal's replacement was not named. This shift, in combination with Upaduyha's earlier transfer to head of the Examination Council, poses a potential constraints to the research, since these two officials were the primary supporters of the EMIS Research activity in Nepal. Butterworth will work with the replacements for Upaduyha and Suwal when they are named to explain the IEES Project and Policy Research activities and to enlist their cooperation.

Analysis of Issues. The central purpose of the initial research team meeting was to determine the issues and problems that might be encountered in conducting policy research in the manner proposed under the IEES Policy Research Initiative. Several key issues were identified at the Nepal meeting.

1. The researchers from all three countries were interested in the research and believed the Policy Research Initiative would benefit their country. AID logistical procedures and mechanisms may present many difficulties in supporting a research project of this type. For example, the CRCs in Somalia and Yemen report that their institutions (the MOE and Sana'a University respectively) have little experience in managing cost reimbursable contracts requiring as much detail and as many prior approvals as this one. It is critical that IEES be explicit at the time of contracting as to (a) the specific regulations and requirements (for record keeping, receipts, etc.) that apply, (b) the flexibility that can be allowed in these subcontracts, and (c) the consequences if an expenditure is disallowed (e.g., who then pays for it; how does the Project recover the money that has already been advanced, etc.). IEES Project management should make every effort to simplify the contracting procedures for these subcontracts, perhaps issuing the subcontracts as fixed-cost work orders.

2. The difficulties USAID Missions face in providing logistical and administrative support to PRI efforts constrain the conduct of a research project of this type, especially in countries in which there is not an IEES RTA. Examples from the EMIS meeting are: (a) USAID/Yemen was unable to provide a travel advance to Kassim Berihe to cover his travel to Nepal, (The EHR Officer indicated that to do so would require a formal IEES contract amendment from FSU.); and (b) The USAID/Nepal Mission was unable to cash traveler's checks for dollars, which were needed to pay travel reimbursements to CRCs. The research planner thus may encounter serious difficulties, not because the ideas are not important, but because the administrative structures to support the activity are not yet sufficiently developed.
3. For the policy research to be conducted on schedule, initial data collection activities need to begin in March 1987. It will be important for IEES to review and make final approval decisions on the research proposals and budgets at the time for the IEES Second International Conference. If the approval process goes beyond that meeting, four consequences are anticipated:
 - start-up times for the collaborating countries will be staggered, making it harder to coordinate common research activities across countries;
 - some countries may miss important deadlines for their research, e.g., Nepal wants to collect data before the beginning of the monsoon season in June;
 - budgets and schedules are being prepared on the assumption that funds will be available by March 1987. These would have to be revised, thereby slowing progress of the research;
 - costs for the research will increase, as Research Team Leaders and travel funds would have to be extended beyond the original two years, or, alternatively, the research plans will have to be revised downward to accommodate a shorter timeframe, thereby changing the nature of the research itself.

The experience gained from the initial EMIS research team meeting supports three recommendations for structuring future activities of the EMIS Policy Research Initiative.

1. Future group meetings of Country Research Coordinators should be held in the United States.
 - Transportation is easier to arrange and schedules are easier to revise when participants are unable to keep their original schedule.
 - The length of the trip can be adjusted for CRCs who are late in arriving or ill during the meeting or who for other reasons need more time working with the RTL.

- Holding the meetings in the U.S. would help avoid the problems encountered by the difficulties of the USAID Missions in providing some of the types of support needed for the research teams.
2. The RTL needs to provide more face-to-face assistance and supervision of CRC activities originally planned, especially in countries in which there is no IEES RTA. Some of the CRCs have little or no experience in designing and conducting field research, in supervising a research team, or in budgeting and management research funds under a cost reimbursable contract. The failure to stay in frequent direct contact with the CRC will threaten the quality of the research conducted and may result in money management and budget problems that could delay the research activities.
 3. Contingency plans should be developed in each country in case the CRC is transferred or resigns from the research project. This issue is not as critical in Nepal, since New Era is a well-established firm.

However, the CRCs in both Somalia and Yemen expressed concern about the stability of their participation over two years.

Teachers Incentives. The teacher incentives policy research team met in Sana'a, Yemen Arab Republic, between November 21 and 29. The PTL and Associate PTL prepared detailed outlines for the sessions. These materials are included in Appendix VIII. Substantial modifications of these materials were made based on the suggestions of the CTLs. As was the case with the EMIS group, the teacher incentives team meetings were characterized by a high degree of participation and collaboration.

Teacher Incentives Systems Initial Meeting. The Teacher Incentive Systems research team met in Sana'a, YAR from November 20-29, 1986. The following items were covered.

PURPOSE AND OBJECTIVES

Conceptual Framework. To collaboratively develop a theoretical model, research design, and basic instrument for the Teacher Incentive Project.

Concept Analysis. To identify the common, variable, and critical elements of a teacher incentive system and to derive a functional definition of teacher incentives.

Procedural Analysis. To identify the stages and steps in the analysis, design, and implementation of an improved teacher incentive system.

Model Building. To identify system factors, incentive variables, and outcomes of a teacher-incentive system and to graphically depict various cause-effect relationships among them.

Research Design. To identify appropriate subjects, instruments, methodology, and analysis procedures for conducting policy research in teacher incentives.

Instrumentation. To identify a suitable format and specific item for basic instruments to be used in the research study.

Proposal Preparation. To prepare a policy-research proposal on teacher incentives for submission to the IEES Project.

Rationale. To provide a rationale for conducting a policy research study on teacher incentives, citing current conditions in the country.

Goals, Products, and Outcomes. To specify the overall goal, intermediate and final products, and individual and institutional activities of the study.

Research Statement. To specify the research variables, policy issues, theoretical framework, research questions, methodology, and limitations for the proposed study.

Management Structure. To identify the roles and functions of key project personnel and to nominate suitable candidates for each position.

Budget. To prepare a budget for the life of the project, specifying and justifying personnel, materials, and supplies, in-country travel, translation, photocopying, and printing, and conference expenses.

Laying the Groundwork. To establish guidelines for collaborative activities among the IEES Research Team, Country Research Team, MOE, and USAID Mission.

Country Team Briefing. To identify key professional personnel as the Country Research Team and to brief them on the interrelationships among IEES Project, Policy Research Initiative, Teacher Incentives Study, and the research within the country.

MOE Briefing. In collaboration with the CTL, to brief the appropriate members of the MOE about the study and to obtain a letter of approval for the project proposal.

USAID Mission Briefing. In collaboration with the CTL, to brief the appropriate personnel at the local USAID Mission regarding the study, invite their suggestions, respond to their concerns, and obtain a letter of approval regarding the salary structure for members of the Country Research Team.

PROCESSES AND OUTCOMES

A variety of procedures were followed to achieve these purposes. The procedures and accomplishments include the following:

1. **Documentation.** A set of papers, handouts, checklists, worksheets, and job aids were prepared to assist the CTLs (and, later, members of their teams) in achieving the project objectives. All documents had immediate practical applicability.
2. **Books.** Three books of special relevance to the project were selected. Two of them are practical manuals on conducting policy research and surveys. The third one is an example of the type of outcomes the team is attempting to achieve.
3. **Lecture/demonstrations.** At the Sana'a meeting, Windham presented brief lectures (e.g., on the concept of teacher incentives), active discussions (e.g., brainstorming for alternative nonmonetary incentives), and demonstrations.
4. **Collaborative Revisions.** As a group, most of the documents were modified to better suit the realities in different nations. For example, they drastically edited and simplified the interview protocol team.
5. **Individual Assignments.** All CTLs worked during most afternoons to apply the general concepts and procedures to their particular study.

6. Consultative Assistance. Thiagarajan and Kemmerer worked with each CTL to provide personalized consultative help in the preparation of the management structure and the budget. They also explained different concepts individually to those who needed additional clarification.
7. Secretarial Help. Because of language differences and time requirements for preparing documents in English, the Yemen proposal was typed and distributed to team members.
8. Briefings. The appropriate Ministers (in Yemen and Liberia), Country Team Members (in Yemen and Liberia), USAID Mission officials (in all three countries), MOE officials (in all three countries), and the RTA (in Somalia) were briefed.
9. Financial Transaction Discussions. In Yemen the team discussed collaborative approaches to financial transactions with Karl Schwartz; in Somalia, with Mark Berger; in Liberia, with IIR.

PLANS

Yemen. USAID Mission and MOE approval of the budget may be withheld pending the writing and submission of the proposal for the Data Management Study. The Country Research Team, in the meantime, is translating the proposal into Arabic.

Somalia. The proposal is ready and approval letters are likely to be obtained on Hussein's return from the Yemen trip (around December 6th). Both the Teacher Incentive and Data Management proposals and approvals are likely to be sent back through Steve Benjamin, who is scheduled to return to Bloomington on December 11, 1986. In the near future, Mark Berger is planning to assemble the teams for both projects and to brief them.

Liberia. Everything is in place in Liberia and the Country Research Team is awaiting word to start initiating the project.

IEES Team. The team has a series of new and revised documents to prepare and to send to all three countries. The team will coordinate the approval process for the different proposals. A set of objectives, schedules, and handouts for the post-International Conference meeting of the research group.

Financial Transactions. The preferred mode of payment for all three countries is this: At the beginning of the project, PRI pays an advance equal to three months' estimated expense of US \$6,250 ((15000/24) x 3). At the end of each month, on submission of voucher and receipts from the CTL, PRI reimburses all expenses so that the CTL will have a rotating three months advance throughout the life of the project (except for the last two months). This approach may not work during one or two heavy-expense months during the national survey, and special provisions may have to be made.

The preferred modes for the transfer of funds are: In Yemen, the Mission will handle it. In Somalia, PRI may send the funds through the RTA. In Liberia, PRI can use the IIR office at the LRCN Project.

Support of Local Capacity. The third research team--the support of local capacity (decentralization)--is scheduled to meet in Washington during mid-December. The intended timing of future research initiative activities for all teams is as follows:

- Mid-February 1987 - approval of country work plans and budgets for all CTLs.
- Mid-February 1987 - meeting of all research teams at IEES International Conference in Denpasar; post-conference meeting individual teams for four days to finalize research issues and administrative and financial logistics.
- March 1987 - August 1988 - Status reviews of policy issues, field work, and interim reports (at least one additional team meeting will be held as well as visits by the PTLs or Associate PTLs to the individual countries).
- September 1988 - Draft final report prepared.
- September 1988 - March 1989 - Review, discussion, and revision of final reports; preparation of dissemination plans (each country will have a major policy conference).
- March 1989 - Consideration by IEES and AID of continuance of policy research activities (with extensions, modifications, or new initiatives).

The most immediate constraint on successful implementation of the research initiative is the lack of clear contractual guidelines for each of the country research budgets. To resolve this problem, a meeting was scheduled in December 1986 to bring together the PTLs AID and FSU contract officers, and project management personnel. During that meeting, John McLanahan of FSU reported that AID/W contracting office has determined that the money for support of in-country research activities should be contracted through fixed-cost subcontracts, to agencies where appropriate and through personal service contracts where agency contracts are not appropriate; however, the Project can not subcontract to a foreign government ministry. This information is being communicated to the CTLs by the Project Team Leaders and specific recommendations on how the fixed cost contracts are to be written should be available by the IEES Second International Conference in Indonesia. These decisions concerning subcontracting will resolve the financial logistical problems that exist and in future attention of participants can turn to issues of research methodology and promotion of an improved policy dialogue.

2.4 TRAINING ACTIVITIES

In-country training is integrated into all IEES activities as an essential mechanism for increasing host country participation and for building institutional capacity. Accomplishments and training activity projections are reported in the Field Activities Section of this report and summarized in the annex. In addition to these targeted training activities, the IEES consortium is also actively involved in the development of generic training support materials with wider potential application for all IEES collaborating countries, other developing countries, and international development agencies. These materials are intended to support training in databased decisionmaking and in sector assessment methodology. The status of these activities is summarized in the following sections.

2.4.1 Togo Workshop on Databased Decisionmaking

2.4.1.1 Background

The common interests of CIRSSÉD (Centre Interafricain de Recherches et d'Études Supérieures en Sciences de l'Éducation, a training institute attached to the Université de Bénin in Lomé, Togo), the Economic Development Institute of the World Bank, S&T/Ed., and the IEES Project created this activity. These organizations were interested in materials that could be used to train government officials in developing countries in more systematic, databased educational policy analysis in situations where time is severely limited.

CIRSSÉD first requested such training from the staff of the Economic Development Institute of the Bank in Spring 1985. Contacts among the World Bank, S&T/Ed., and the IEES Project on this subject developed over the summer. In Fall 1985, agreement was reached. IEES assumed responsibility for the initial development of training materials for a prototype workshop for quick response analysis to be held at CIRSSÉD. The World Bank agreed to fund and support the conduct of the workshop. James Cobbe and Sande Milton of FSU were engaged to prepare the instructional materials. A first set of plans for production and field testing of the documents was also developed.

In mid-January 1986, a week-long meeting involving IEES, World Bank staff, and five representatives from CIRSSÉD was held in Tallahassee to review the initial plans for the workshop program and the instructional materials that had been outlined by Cobbe and Milton. On the basis of this meeting, Cobbe and Milton drew up a revised document on "Program Objective and Scope of Work" with a series of appendices detailing the pedagogical approaches to be used, the type of data to be developed, the profile of expected trainees, outline of the case studies, the overall workshop program, hardware and software specifications, and an evaluation

plan. This document was submitted at the end of the month to S&T/Ed. and to the World Bank.

During the months of February, March and April, Cobbe and Milton, with the help of four graduate assistants (1 1/2 FTE), developed case study materials, exercises, sets of quantitative and qualitative data, and an instructor's manual for use during the initial trial run, scheduled to take place in Lome in June. Translation of these materials into French was undertaken by Kabule Weve, a Zairian graduate student at the University of Laval in Quebec City, Canada, who is an associate of Diambomba. Aline Bory-Adams, a Ph.D. candidate in the International/Intercultural Development Education Program of FSU's College of Education who has extensive experience in staff training in francophone Africa and is a native French speaker, was chosen to assist with this work and to accompany Milton to Lome in June.

The month of May was devoted to completion and correction of these materials, to production of finished copy and to final preparations for the workshop. Cobbe and Milton also made a presentation on the Togo Workshop activity to the IEES International Steering Committee meeting in Tallahassee on May 20, 1986. All materials required for the June field-test were finalized, duplicated, collated into 3-ring binders, and dispatched with Milton and Bory-Adams to Togo on May 30. French binders contained approximately 178 pages; English binders, an additional 345 pages, for an approximate total of 523 pages of workshop-related materials produced. Only two of the three case studies slated for production were completed before the team's departure. These, however, provide ample material for the trial run. Staff in Tallahassee continued work on the third case study during the month of June 1986.

The workshop is based on a learning-by-doing approach within a group environment. It has two major components. The first, to be performed in groups,

consists of skill-refresher exercises relevant to rapid policy analysis. Second, constituting the true core of the workshop, are case-study simulations in which groups of trainees perform policy analysis on a hypothetical but realistic problem for which they are provided both quantitative data and contextual information. During the field test in Lome in June, these methods were reviewed with CIRSSSED faculty, who then conducted an abbreviated trial run of the workshop with CIRSSSED students and Togolese civil servants under the direction of IEES and World Bank staff.

2.4.1.2 Accomplishments During Report Period

Between May 30 and June 22, 1986, a trial run of the instructional materials was conducted in Lome, Togo. The workshop was held at CIRSSSED and was supervised by Milton assisted by Bory-Adams. The overall results indicate that the field test was very successful with respect to:

1. learning outcomes;
2. appropriateness of the problem-solving methodology as an effective tool for working through the case studies; and
3. demonstration of the value of group work as an instructional strategy.

The collaborative efforts of all the parties present in Lome, World Bank staff, CIRSSSED faculty and IIEP evaluator, provided the FSU team with feedback for necessary revisions which were made during the months of September through December.

The major lessons learned during the field test were the need for improved continuity between the exercises, need for greater elaboration of solutions in the facilitator's manuals, and need to rewrite the problem statement of the first case study. The revisions required recasting the skill-development exercises into the first case study, enlarging the facilitator's manuals, and rewriting the problem statement of case study one. This involved rewriting some sections and

reorganizing the information pieces in order to achieve better coherence within the new version of the case study. This activity is now completed, and the revised materials will be available by January 31, 1987.

2.4.1.3 Projected activities

The revision of the instructional materials during the fall semester was funded by the Learning System Institute at FSU which took charge of all the financial costs and provided the necessary institutional support. At an October 31 meeting in Washington among representatives from CIRSSSED, AID, the World Bank, and FSU there was a general consensus on the importance and the value of pursuing the work started through the Lome workshop. However, general financial restrictions did not allow for any firm commitment on the part of the various parties. Additional funding will be sought from outside sources such as the UNDP in order to implement a follow-up workshop in Togo by April 1987.

2.4.1.4 Conclusions and Implications for the Future

IEES work on the Togo training activity has been greatly appreciated by the World Bank and by CIRSSSED. It promises to have definite value for the consortium as well. A set of training materials in educational planning which are potentially applicable to other IEES countries has been developed. Country representatives at the IEES International Steering Committee meeting in Tallahassee in May 1986 expressed a high level of interest in the workshop format and materials and in the possibility of conducting this type of activity with their national staff. Additionally, the Togo workshop has enabled IEES to form good working relations with the training branch of the World Bank and with CIRSSSED staff. From both of these points of view, it would be desirable to follow through with the subsequent workshop phases in Project Year Three. This involvement would provide the team the opportunity to refine the workshop methodology and materials, to cement relations

with CIRSEED, and to make contacts with educational planners from a range of francophone African countries. If, however, this proves to be impossible for financial reasons, the consortium will have developed a training tool with many potential applications in IEES collaborating countries.

2.4.2 Training Manual for Sector Assessment Methodology

Developments and Accomplishments to Date. IIR has completed the draft for a training manual to encourage more widespread application of the sector assessment methodology being implemented in the IEES project. The goal of the manual is to encourage the more efficient use of the limited educational resources in developing countries worldwide. Its immediate purpose is to foster the understanding, adoption, and application of the sector approach to education and human resources planning and management in these countries. To accomplish this, IIR has prepared an experienced-based handbook with an accompanying set of related support materials designed to have the following outcomes within developing countries:

- Encourage institutionalization of the sector approach to planning and managing the allocation of educational resources.
- Encourage policy formation and planning decisions that are soundly based on the analysis of data.
- Obtain baseline information needed to support and evaluate activities within subsectors.
- Highlight opportunities and constraints related to development within subsectors.
- Identify a rank-ordered set of recommendations within each subsector, based on an analysis of each subsector's status, plans, needs, and constraints.
- Synthesize the subsector recommendations into an integrated set of action steps that will encourage the most efficient use of local and donor resources with the education sector.
- Encourage donor coordination through a closer alignment of donor activities and plans with host government goals and policies.

- Improve the efficiency and effectiveness of resources utilization within the sector, based on the assumption that the amount of funds for education will not significantly increase in real terms in the near future for most developing countries.
- Propose a common format for the assessments, incorporating a systems analysis conceptual framework, that will simplify the organization and analysis of relevant information, enable countries with related objectives and constraints to better share problemsolving ideas and approaches, facilitate updates and revisions, and enhance networking among educators and planners across developing countries.

To meet this goal, this manual is divided into nine chapters: Goal, Objective and Outcome; Overview; Introduction to the Sector Assessment Approach; Preparation; Perspectives; Conceptual Framework; Writing; Presentation; and Applications. This handbook also contains a list of bibliographic sources consulted for its preparation and a series of attachments to serve as resources for those who will use the handbook to support their own work in education and human resources sector assessment.

2.4.2.1 Accomplishments During Report Period

An initial outline was distributed to all consortium institutions early in February 1986 requesting suggestions and comments. This outline was approved at the February EMC meeting. Using the outline and comments received from several individuals, IIR has completed the first draft.

The first draft of the manual was completed by December 1st. The table of contents of this draft as well as the introductory pages are included in Appendix VII. A final completion schedule will be partially dependent upon the extent of the comments and suggestions received as a result of a review within the consortium.

The completed manual will provide flexible guidelines for planning and managing education and human resources sector assessments for developing countries. The major source of information for the handbook was the literature on the sector

assessment process and experience with the preparation of assessments conducted in Botswana, Haiti, Indonesia, Liberia, Somalia, and the Yemen Arab Republic. These assessments were conducted under the sponsorship of S&T/Ed. The three most recent assessments, those conducted in Haiti, Indonesia, and the Yemen Arab Republic, were implemented through the Improving the Efficiency of Educational Systems (IEES) project.

The handbook presents a level of detail that will enable the recommended approach to be applied by Bachelor-level professionals in developing countries, with a few years of relevant experience, on a team supplemented by two or three senior and experienced technical specialists (e.g., an economist, and educational planner, and an education analyst). The specialists may be external consultants in some cases, and in others, this may not be necessary. A major objective is to utilize local expertise to the greatest extent possible.

The handbook is accompanied by a set of materials which contains published information that supports the sector assessment process; for example, information related to cost-effectiveness applications. Also included with the handbook are bound versions of the following assessments that are referenced in the handbook: Botswana, Haiti, Indonesia, and the Yemen Arab Republic.

2.5 PROJECT STAFF

IEES Project staff have primary responsibility for direction and policy making. An organizational chart of the IEES project is included in Appendix V.

Senior project staff are:

Robert Morgan	Principal Investigator	FSU
John Bock	Project Director	FSU
Milton Adams	Deputy Project Director	FSU
Victor Cieutat	Institutional Coordinator	IIR

Frances Kemmerer Institutional Coordinator SUNYA
 Willie Howard Institutional Coordinator Howard
 Douglas Windham Technical Coordinator SUNYA

Four additional staff members have central management responsibilities as well as field management assignments in collaborating countries. The level of effort and time allocation for these staff are outlined below.

Peter Easton: June 11-December 10, 1986

<u>Activities</u>	<u>Workdays</u>
1. HAITI	
Field Country Coordination	10
IIBE Project	52
Office Country Coordination	8
IIBE Project	50
2. Educational Efficiency Monograph	2
3. Administrative	
Progress Reports	2
Other/Miscellaneous	2
Vacation	5
TOTAL	130

Jerry Messec: June 11-December 10, 1986

<u>Activities</u>	<u>Workdays</u>
1. SOMALIA	
Field Distribution Study	
Transitional Strategy	
TTD Final Review	33
Office Field Work Preparation	2

Distribution Study	8
TTD Production	3
2. POLICY RESEARCH INITIATIVE	
EMIS Review of Literature	18
3. IEES PUBLICATIONS	
Communique Newsletter	10
Technical Packages	5
Monograph Preparation	3
Haiti Sector Assessment Preparation	6
Indonesian Sector Assessment Preparation	8
EMC Meeting Reports	2
4. PROJECT MONITORING	
Semi-Annual Progress Reports	20
Annual Reports	2
Status Updates	2
5. ADMINISTRATIVE	
Word Processing Supervision	2
Graduate Assistant Supervision	4
Other/Miscellaneous	2

Mary Joy Pigozzi: June 11-December 10, 1986

<u>Activities</u>	<u>Workdays</u>
1. IIBE Project Initial Implementation	29
2. Sector Assessment Manual	10
3. Second IEES International Conference	6
4. IIBE Project R&D Design	9
TOTAL	54

Howard Williams serves as the Staff Coordinator for the Junior Secondary Education Improvement Project (JSEIP) in Botswana. As such he is responsible for monitoring all central office support for JSEIP field staff and maintaining all project status reports and records at central office.

Graduate Research Assistants support central office activities in three important areas:

1. provision of technical support for project field activities,
2. assistance to project staff and consultants,
3. control and maintenance of project documents and materials.

Four graduate research assistants were assigned during this report period to assist central project staff. They have contributed to the accomplishment of project objectives with their individual training and expertise.

- Vera Kodis and Juliet Chiew operate the IEES Clearinghouse for Educational Efficiency at FSU and have implemented the plans for establishing Educational Efficiency Resource Centers in collaborating countries. They have also assisted project staff engaged in designing the IEES Policy Research Initiative by compiling resource lists of documents for their use.
- Alan Hoffman has served as production staff for the IEES Communique, the intraconsortium newsletter. His expert design skills have resulted in a much improved newsletter format, assisting Editor Jerry Messec. Hoffman has also assisted in editing major project documents such as the Haiti EHR Sector Assessment, the Indonesia EHR Sector Review, and the IEES Monograph on Evaluation of Educational Project.
- Nancy Bickford has brought a high level of skills in Instructional Systems Design to the project, and has completed a review of all IEES training activities during this report period, with suggestions for improving this significant area of field activities. Bickford has also assisted with the development and review of three technical packages.
- Nadine Mandolang has assisted in preparing background material for project reports, provided editorial assistance for completing the Somali-English Technical Term Dictionary and the Indonesian Country Implementation Plan for IEES Activities. Mandolang's high level of technical writing skills has improved the quality of project documents and improved project monitoring.

2.6 ACHIEVEMENTS, PROBLEMS ENCOUNTERED, AND LESSONS LEARNED

Central project management operations were greatly facilitated during this report period by the implementation of the management information system designed during the previous period. This system has not only served to better inform the project management decisionmaking process, but has also contributed to faster and more accurate reporting of project field activities in collaborating countries. Project Status Updates and projected travel schedules have served to inform consortium members of project accomplishments and plans. A greatly expanded intraconsortium newsletter has disseminated not only the facts of project activities to improve educational efficiency, but has also provided background information in order to assist consortium members in understanding the critical issues as they arise both in central management and in field activities.

The Country Coordinator system, which was implemented in the previous report period, has proven to be a workable system for closely monitoring accomplishments and implementation plans in each country. Country Coordinator assignments have ensured that one consortium member gives complete attention to the overall impact of project activities and the coordination of all assistance with Mission and counterparts as stated in the Country Implementation Plan.

The system of Educational Efficiency Resource Centers, implemented during this report period, has created valuable sources of development education knowledge for decisionmakers and planners in collaborating countries. These centers now regularly receive project documents and related materials and thus serve to disseminate the state-of-the-art information developed by IEES to meet the needs of expanding educational systems in nations with scarce resources. These Resource Centers are designed to be incorporated into existing in-country collections and thus will contribute to the building of a knowledge base for development education far beyond the life of the IEES Project.

The review of all IEES training activities undertaken during this report period will contribute to both better management decisions regarding which training activities to undertake in the future and to improving the design of those activities. Central project management is now considering this review and will implement recommendations from the review during the next report period.

The lessons learned from the first two years of project management have guided the development of the IEES management system. Accurate and timely information flow remains the key to effective project management, and this has been greatly improved during the last two report periods. The increase in both the quantity and the quality of information now provided consortium members has resulted in more informed decisionmaking and better feedback from field activities. During the next report period, efforts will be made to improve both the process of document approval by project management and the notification of approval status. This process has now slowed due to the rapid increase in number and size of project documents being produced by central staff, consultants, field project staff, and RTAs. A streamlined procedure is now being considered for implementation during the next report period to ensure that documents can rapidly be approved and disseminated for use by project staff.

APPENDIX I

Summary of Project Travel June-December 1986

IEES PERSONNEL TRAVEL

LSI/FSU	June	July	August	Sept.	October	November	Dec.
R. MORGAN Annual Review BRIDGES Coordination IEL/WB Intergrat'n Study	12-----27	20-----7 (Botswana) (France)	25-----???		4 (Washington D.C.)	3-----21 (Liberia)	
J. MAYO Sabbatical				27	***** (England)*****	(6 Jan.)>	
J. BOCK Vacation Country Implem. Plan				5-----20 21-----	15 (Indonesia)		
M. ADAMS Country Implem. Plan IEL/WB Integration Study							
J. MESSEC Curric. Dist. Study			13-----	7 (Somalia)			
J. MCDONALD Vacations JSEIP		18-----	18		10-----	Botswana	>>>
D. BERNARD Mon. of Div. Projects	16-----	(Indonesia)	15				
P. EASTON IIBE Project Startup	17--	(Haiti)--19		21--	(Haiti)--15		
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SUNYA	June	July	August	Sept.	October	November	Dec.
D. WINDHAM Curr. Distr. Study (Som.) MOE Transitional Study PRI (Ed Mgmt Info Sys) PRI (Teacher Incentives)			13-----	3 (Somalia)	13--Somalia--7	11--18 (Nepal) 22-26 (Yemen)	
D. CHAPMAN MIS Planning (Yemen) MIS Planning (Jordan) Consulting (non-IEES) PRI (Privatiztn/Localiz) PRI (Ed Mgt Info Sys)		8--Yemen---8 5-7 (Jordan)			7----25 (China)	2--9 (Indonesia) 10--17 (Nepal)	
F. KEMMERER Country Plan (Nepal) Teacher Incentives Study PRI (Teacher Incentives)	---19 (Nepal)		13-Somalia-7			22-26 (Yemen)	

HOWARD	June	July	August	Sept.	October	November	Dec.
W. HOWARD Country Plan (Haiti) L. MORRIS		8---19 (Haiti)					
IIR							
V. CIEUTAT Training Manual (SA) S. THIAGARAJAN Country Plan (Nepal) MOE Transitional Study PRI (Teacher Incentives) M. PIGOZZI IIBE Project Startup S. ANZALONE IIBE Project Startup		-----19 (Nepal)	13-Somalia-7	22-----11 (Haiti) 14---Haiti---3		22-26 (Yemen)	
CONSULTANTS							
M. HENDRICKS Eval. of REPELITA IV H.K. YIP EPP Training Manual S. MILTON Training Manual (Togo) A. BORY-ADAMS Staff Wkshp. (Togo) M. GREEN Info. Mgt. Wkshp. W. MCMAHON Country Implem. Plan C. O'BRIEN MIS Planning (Yemen) MIS Planning (Jordan) R. KRAFT IEL/WB Integration Study C. CHADWICK IEL/WB Integration Study S. HOENACK Ed. Dev. Project Paper J. STRUDWICK Tech. Asst. (Yemen)	1-----Indonesia-----10 23-----Indonesia-----24			8---Yemen---8 5-7 (Jordan)	22-----11 (Indonesia)		13-----21 (Liberia) 13-----21 (Liberia) 7-----6 (Yemen)
				17---Yemen---23			

APPENDIX II

Summary of Field Activities

IEES Status Updates

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II. IN COUNTRY ACTIVITIES

<u>COUNTRY AND ACTIVITY</u>	<u>SCHEDULED</u>	<u>CONDUCTED</u>	<u>COMMENTS</u>
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II. IN COUNTRY ACTIVITIES

<u>COUNTRY AND ACTIVITY</u>	<u>SCHEDULED</u>	<u>CONDUCTED</u>	<u>COMMENTS</u>
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BOTSWANA

SA Update		April-May '85	Completed, published March '86
Botswana Country Plan	7/15 - 7/30 '86	7/20 - 8/9 '86	R. Morgan
Development of Information Management Systems for UTS Bursaries and Nonformal Divisions of NDE	7/15 - 6/30 '87		These activities are awaiting Washington Approval and will be written into the Country Plan. Dates are tentative.
Policy Research Initiative	Year 3 - ongoing		
Joint Masters Degree Program	Year 3 - ongoing		FSU/UB degree program
RTAs	9 LITAs A. Hartwell (COP)		COP acts as IEES RTA

HAITI

SA Update	Not scheduled		May not be undertaken yet
Country Plan	6/17 - 7/15 '86	6/17 - 7/19 '86	P. Easton, M. Adams and W. Howard Finalization of Country Plan in Dec. '86
Start-up of Haiti IIBE Project	September '86	Completed	
Translation into French publication and dissemination of Haiti EHR SA	October '86		Publication and dissemination of final Haiti SA in October '86
Training Workshop on Educational Assessment and Evaluation	November '86		Dates tentative only
Design and Initial implementation of preprimary education evaluation	November '86		Dates tentative only
Education and Employment Study	February '87		Dates tentative only

II. IN COUNTRY ACTIVITIES

<u>COUNTRY AND ACTIVITY</u>	<u>SCHEDULED</u>	<u>CONDUCTED</u>	<u>COMMENTS</u>
Preparation of IEES Annual Work Plan	May '87		Dates tentative only
Policy Research Initiative	Year 3 - ongoing		
<hr/>			
INDONESIA			
Evaluation of REPELITA IV	5/1 - 9/10 '86	5/1 - 8/30 '86	M. Hendricks
Monitoring of Development Projects	5/15 - 8/15 '86	6/15 - 8/15 '86	D. Bernard
<hr/>			
<u>COUNTRY AND ACTIVITY</u>	<u>SCHEDULED</u>	<u>CONDUCTED</u>	<u>COMMENTS</u>
Preparation of IEES Country Implementation Plan	9/22 - 10/10 '86	9/17 - 10/15 '86	J. Bock and W. McMahon
Educational Efficiency Study	January '87		Dates tentative only
Vocational Education Study	March - April '87		Dates tentative only
Policy Research Initiative	Year 3 - ongoing		
Recruitment and Placement of LTTAs		Completed	3 LTTAs in place (COP acts as RTA)
<hr/>			
LIBERIA			
Technical Assistance with IEL II / WB Project Integration Study	10/14 - 11/21 '86	Completed	Morgan, Adams, Chadwick, and Kraft
IEL II Project Paper Design	To be scheduled prior to SAU		C. Chadwick
SA Update	5/20 - 6/20 '87		D. Chapman, Team Leader (Team TBA)
Technical Assistance with MOE National 5-Year Plan	To follow SAU		
Policy Research Initiative	Year 3 - ongoing		A. Coleman is CTL
<hr/>			
NEPAL			
Country Plan	5/27 - 6/19 '86	Completed	F. Kemmerer and S. Thiagarajan

195

II. IN COUNTRY ACTIVITIES

COUNTRY AND ACTIVITY	SCHEDULED	CONDUCTED	COMMENTS
Information Management Workshop	5/19 - 6/11 '86	5/25 - 6/6 '86	Country Plan awaiting IMC approval M. Green.
Technical Assistance Activities (to be identified by annual work plan)	Not scheduled		
Policy Research Initiative	Year 3 - ongoing		New ERA associate

SOMALIA

Computer workshop (from year 2)	5/31 - 6/22 '86	In progress	F. Dembowski
Transitional Strategy for Primary Education	8/13 - 9/7 '86	Completed	D. Windham, S. Thiagarajan, Messec, Kemmerer
Design of Educational Materials Distribution	8/13 - 9/7 '86	Completed	J. Messec
Teacher Incentive Study I	8/13 - 9/7 '86	Completed	F. Kemmerer
Technical Dictionary (Cont.)	August '86	Completed	RTA/ Messec final version
Computer Application Workshop I	November '86		RTA / Demboeski

COUNTRY AND ACTIVITY	SCHEDULED	CONDUCTED	COMMENTS
Teacher Materials Training Design	Nov. - Dec. '86	Completed	S. Benjamin
Implementation of Transitional Strategy	12/26 '86 - 1/20 '87	In progress	F. Kemmerer, S. Thiagarajan
Policy Analysis Training Workshop I	January '87		Dates / personnel not scheduled yet
Computer Application Workshop II	February '87		RTA - dates not scheduled yet
CIP Development	March - April '87		D. Chapman, V. Cieutat
Policy Analysis Workshop	April 1987		M. Green
Policy Research Initiative	Year 3 - ongoing		1. EMIS: A.H. Gaal is CTL 2. Teacher Incentives Systems:

186

II. IN COUNTRY ACTIVITIES

<u>COUNTRY AND ACTIVITY</u>	<u>SCHEDULED</u>	<u>CONDUCTED</u>	<u>COMMENTS</u>
End of RTA Field Work	May '87		H.M.Said is CTL
<hr/>			
YEMEN			
IEES Country Plan	2/11 - 3/1 '86	Completed	D. Chapman and R. Boothroyd
5-year Plan Assistance to MOE: EMIS Development	4/15 - 5/13 '86	Completed	D. Windham and J. Messec.
5-year Plan Assistance to MOE: EMIS Development	6/17 - 7/23 '86		J. Strudwick
Technical Training Program in computers and school location planning	7/6 - 8/2 '86	Completed	Conducted at SUNYA for MOE/EDRC staff
Development of EMIS	7/10 - 8/8 '86		D. Chapman and C. O'Brian
Assistance in FP Development for Com. Based Curr. Project		Completed	Assistance with an Education Economist (S. Hoewack)
Design of Labor Force Analysis and Manpower Needs Assessment	8/3 - 8/30 '86	postponed	W. McMahon J. Strudwick Postponed - tentatively to 12/26 '86
Review and Revision of Educational Data Collection Forms	1/20 - 2/18 '87		R. Boothroyd, J. Strudwick
CIF Development	April 1987		D. Windham
Manpower Analysis/Training Needs Assessment for Ministry of Civil Service and Administrative Reform	To be scheduled		
Policy Research Initiative	Year 3 - ongoing		K.Beriche is CTL
Strategies for reenergization of Teaching Force	Not scheduled		

<u>COUNTRY AND ACTIVITY</u>	<u>SCHEDULED</u>	<u>CONDUCTED</u>	<u>COMMENTS</u>
<hr/>			
ZIMBABWE			
Placement of RTA			RTA V. Levine took up post on 9/12/85; contract extended to Dec. '86

1. REQUIRED CONTRACT DELIVERABLES

PRODUCT	SPECIFICATION	RESPONSIBLE	STATUS	COMMENTS
Annual Plan	1 per year	J. Messec	- Year One: Approved - Year Two: Approved - Year Three: Submitted - Year Four: Due 7/86	
Progress Report	1 each six months	J. Messec	Dec. '85 - Jun '86: Submitted Jun '86 - Dec. '86: In progress	Information for Dec '85-June '86 report not all received yet and awaited
Quarterly Financial Report	1 each quarter	J. McLanahan	On schedule	
Sector Assessment	1 per country of the 9 countries	EMC	- Liberia: Completed/Approved - Somalia: Completed/Approved - Botswana: Completed/Approved - Yemen: Completed/Approved - Niger: Completed - Haiti: Completed/Approved - Indonesia: Completed/Approved - Nepal: Tentatively scheduled - Zimbabwe: N/A	Pre IEES Pre IEES (IEES Edit/Produce) Pre IEES (IEES Edit/Produce) Pragma Corp. (Sector Review)
SA Update	- in at least 3 countries during the first 12 months	EMC	- Botswana: Completed - Liberia: Tentatively scheduled - Somalia: Completed	1 out of 7 completed. Liberian SAU team to be identified UEB functions as SAU
RTAs	at least 3 countries	EMC	Somalia: 1 Nepal: 1 Zimbabwe: 1 Botswana: 1 (9 LITAs) Indonesia: 1 (3 LITAs)	RTA acts as COP RTA acts as COP
Country Plans	1 for each country - updated annually	Country coordinator	- Botswana: Completed - Somalia: Completed - Nepal: Completed - Yemen: Completed - Haiti: Completed (to be approved) - Indonesia: Completed (to be approved)	
Project Design	At least 3	EMC	- SOMTAD Somalia - PRIMARY EDUC. Somalia - JSEIP Botswana	

100

1. REQUIRED CONTRACT DELIVERABLES

PRODUCT -----	SPECIFICATION -----	RESPONSIBLE -----	STATUS -----	COMMENTS -----
			- IEL II Liberia - IIBE Haiti (In progress) - EPP Indonesia - CurrProj. Yemen (approved)	
Policy Research Initiative	At least 3	Overall Coordinator: D. Windham	Approved by ISC at May '86 meeting	1. Teacher Incentives Systems Sana'a, YAR 11/22 - 11/26 '86 F. Kennerer S. Thiagarajan 2. Educ. Management Information System Kathmandu, Nepal 11/11 - 11/18 '86 D. Chapman J. Messac 3. Support of Local Capacity Washington, D.C. Dec. '86 J. Strudwick L. Morris
IEES Educational Efficiency Clearinghouse	1 for the consortium	M. Adams J. Chieuw V. Rodis	Established and operational	
In-country Resource Centers	1 in each country	M. Adams	Approved by ISC at May '86 meeting	Established in Somalia and Yemen
Information Bulletins	Quarterly Publication	J. Messac	Placed on hold by ISC at May '86 meeting	Further review pending
Training Manuals	On 2 project activities	A: V. Cieutat B: J. Cobbe	In mid-production stage Target date: A = 9/01/86 Trial date: B = 5/30/86	2 in progress Draft now completed and tested: under revision
Monographs	No specification	A: D. Windham & D. Chapman	Completed	Consortium distribution

1. REQUIRED CONTRACT DELIVERABLES

<u>PRODUCT</u>	<u>SPECIFICATION</u>	<u>RESPONSIBLE</u>	<u>STATUS</u>	<u>COMMENTS</u>
		B: D. Windham	February	
Technical Packages	No specification	J. Messec	3 in production	2 in revision

APPENDIX III

Visitor List

VISITOR LIST

Nat Colletta
IEES/EPP Chief of Party
Jakarta, Indonesia
07/17/86 - 07/18/86

Ann Domidion
EHRDO USAID/Botswana
Gaborone, Botswana
07/29/86

Frederick Humphries
President, FAMU
Tallahassee, Florida
03/24/86

Joan Leslie
Washington, DC

Hon. Othello Gongar
Minister of Education
Monrovia, Liberia
05/19/86 - 05/23/86

Jakes Swartland
Deputy Permanent Secretary
Gaborone, Botswana
05/19/86 - 05/23/86

Ali Hassan Gaal
Director of Planning, MOE
Mogadishu, Somalia
05/19/86 - 05/23/86

Ishwor Upadhyay
Joint Secretary, MEC
Kathmandu, Nepal
05/19/86 - 05/23/86

Frances Kemmerer
Institutional Coordinator
State University of New York
Albany, New York
05/19/86 - 05/23/86

Joan Claffey
IEES CTO
AID/Washington
05/19/86 - 05/23/86

Douglas Windham
Research, Project Coordinator
State University of New York
Albany, New York
05/19/86 - 05/23/86

David Chapman
State University of New York
Albany, New York
05/19/86 - 05/23/86

Victor Cieutat
Institute for International Research
Arlington, Virginia
05/19/86 - 05/23/86

Silvasailam Thiagarajan
Institute for International Research
Bloomington, Indiana
05/19/86 - 05/23/86

Willie Howard
Dean, College of Education
Howard University
Washington, DC
05/19/86 - 05/23/86

Lorenzo Morris
Howard University
Washington, DC
05/19/86 - 05/23/86

David Sprague
AID/Washington
11/19/86 - 11/23/86

Alfred S. Hartwell
JSEIP Chief of Party
Gaborone, Botswana
06/01/86 - 06/04/86

Johnson Odharo
JSEIP RTA
Gaborone, Botswana
05/09/86 - 05/17/86

Eric Eno
Consultant, The Little Computer That Could, Inc.
Greensboro, North Carolina
06/03/86

Prayitno
Ministry of Education
Jakarta, Indonesia
07/14/86

Yu Ar
Ministry of Education
Jakarta, Indonesia
07/14/86

Soepomo
Ministry of Education
Jakarta, Indonesia
07/14/86

Soenarto
Ministry of Education
Jakarta, Indonesia
07/14/86

Soeroso
Gadjah Mada University
Jakarta, Indonesia
08/11/86

Dwight Allen
JSEIP RTA
Gaborone, Botswana
07/09/86

Luis Maderal
Florida International University
Miami, Florida
07/09/86

John Carpenter
Florida International University
Miami, Florida
07/09/86

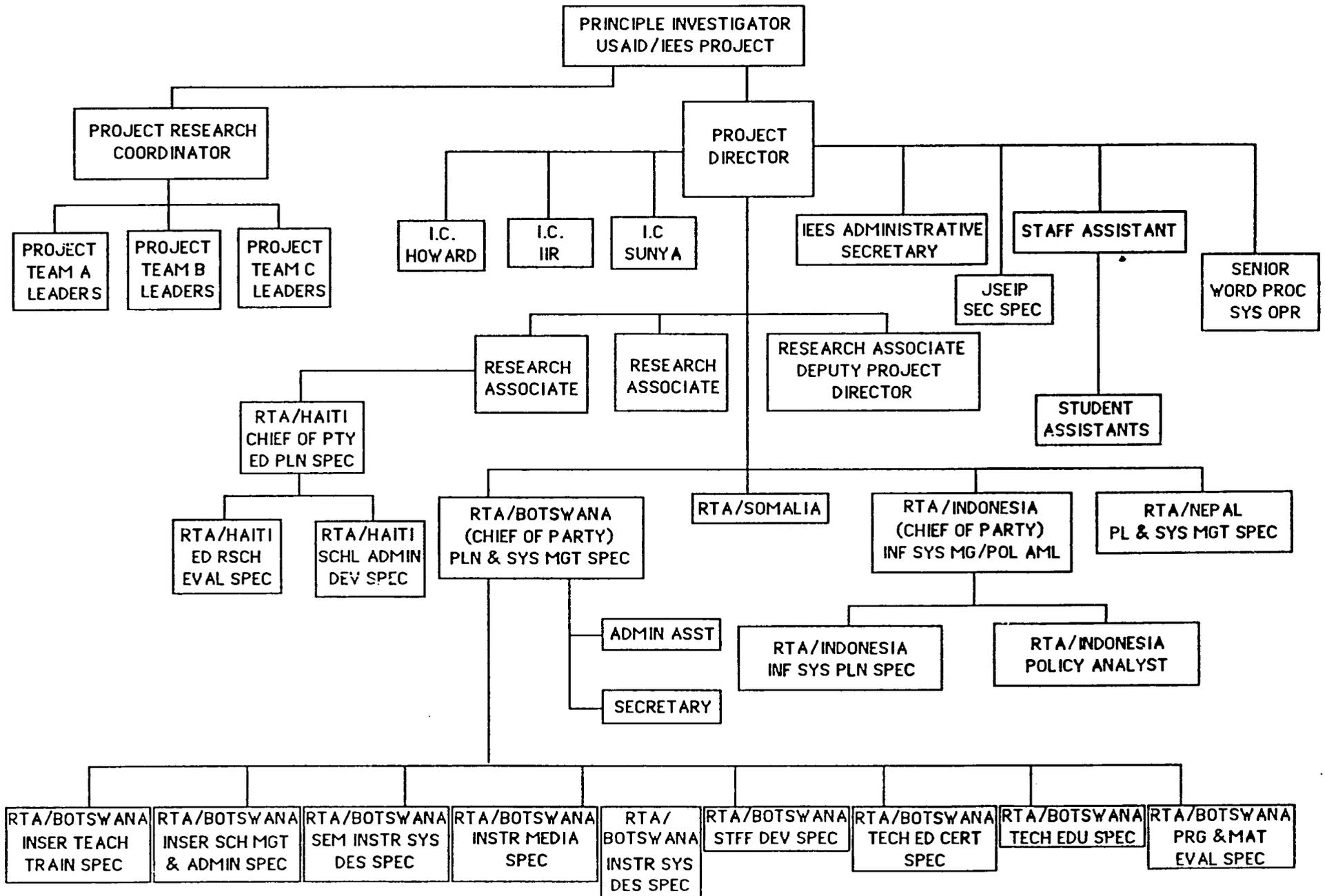
R. Padrun
Florida International University
Miami, Florida
07/09/86

Carlos Alvarez
Florida International University
Miami, Florida
07/09/86

Susan Riccadi
Florida International University
Miami, Florida
07/09/86

APPENDIX IV

IEES Project Organizational Chart



1/96

APPENDIX V :
IEES Second International Conference
Agenda and Participant List

Sunday, February 15

1830-2030 WELCOME DINNER

Monday, February 16

0830-0900 OPENING AND WELCOME

- o By the Republic of Indonesia and the Ministry of Education - Professor Doctor Fuad Hasan, Minister of Education and Culture
- o By the United States Agency for International Development and the IEES Project - David Sprague

0900-0930 CONFERENCE OVERVIEW Robert Morgan and Moegiadi

0930-1000 IEES IN ITS THIRD YEAR: Structure, Accomplishments, Challenges - Joan Claffey

1000-1030 Break

1030-1130 COUNTRY REPORTS

Botswana Report - Jakes Swartland and Robert Morgan

- o Overview of IEES Activities
- o How IEES activities support national planning
- o IEES assistance with Junior Secondary Education Improvement Project
- o Impact of IEES activities on efficiency and policy
- o Discussion

1130-1230 Haiti Report - Rosny Desroches and Mary Joy Pigozzi

- o Overview of IEES Activities
- o How IEES activities support national planning
- o IEES assistance with the Incentives for Improving Basic Education project
- o Impact of IEES activities on efficiency and policy
- o Discussion

1230-1400 Lunch

1400-1500 Indonesia Report - Moegiadi and John Bock

- o Overview of IEES activities
- o How IEES activities support national planning

- o IEES assistance with Education Policy and Planning project
- o Impact of IEES activities on efficiency and policy
- o Discussion

1500-1530 Break

1530-1630 Liberia Report - Othello Gongar and Victor Cieutat

- o Overview of IEES activities
- o How IEES activities support national planning
- o Impact of IEES activities on efficiency and policy
- o Discussion

Tuesday, February 17

0890-0900 Agenda - Moegiadi and Robert Morgan

0900-1000 Nepal Report - Madhup Dhungana and John Bock

- o Overview of IEES activities
- o How IEES activities support national planning
- o Impact of IEES activities on efficiency and policy
- o Discussion

1000-1100 Somalia Report - Ali Hassan Gaal and David Chapman

- o Overview Of IEES activities
- o How IEES activities support national planning
- o Impact of IEES activities on efficiency and policy
- o Discussion

1100-1130 Break

1130-1230 Yemen Arab Republic Report - Abdoraboh Garadah and Douglas Windham

- o Overview of IEES activities
- o How IEES activities support national planning
- o Impact of IEES activities on efficiency and policy
- o Discussion

1230-1330 Lunch

RESEARCH AGENDA

- 1330-1400** **Overview: Policy Research Initiative** - **Douglas Windham**
- 1400-1445** **Education Management Information Systems Research** - **David Chapman**
Jerry Messec
Kassim Berihye
Ali Gaal
Madhup Dhungana
- o Issues overview
 - o Identification of key variables
 - o Identification of improvement indicators
 - o Activities and anticipated outcomes
- 1445-1515** **Break**
- 1515-1600** **Teacher Incentives Research** - **Sivasailam Thiagarajan**
Albert Coleman
Hussein Said
Noman Said Alasawadi
- o Issues overview
 - o Identification of key variables
 - o Identification of improvement indicators
 - o Activities and anticipated outcomes
- 1600-1645** **Strengthening Local Education Capacity Research** - **Lorenzo Morris**
John Molutsi
Ramli Suparman
Jean-Marie Le Roy
- o Issues overview
 - o Identification of key variables
 - o Identification of improvement indicators
 - o Activities and anticipated outcomes
- 1645-1730** **Summary of Policy Research Initiative Strategy** - **Douglas Windham**

Wednesday, February 18

FIELD TRIP - **Moegiadi and John Bock**

- o **Project PAMONG (includes lunch)**

200

Thursday, February 19

- 0830-0900 Agenda - Moegiadi and Robert Morgan**
- TOPIC DISCUSSIONS**
- 0900-1030 Cost and Effectiveness Issues: Materials Based Instruction
Panel Discussion led by Robert Morgan**
- 1030-1100 Break**
- 1100-1230 Measuring Education Efficiency Indicators
Discussion by Douglas Windham**
- 1230-1400 Lunch**
- 1400-1500 Education Policy Analysis Training Program: World Bank IEES -
John Bock**
- 1500-1530 Break**
- 1530-1630 Donor Coordination: Panel discussion led by Jakes Swartland**

Friday, February 20

- 0830-0900 Agenda - Moegiadi and Robert Morgan**
- 0900-1000 Education Sector Assessment Training Manual - Victor Cieutat and
Mary Joy Pigozzi**
- 1000-1030 Break**
- 1030-1130 Other USAID Support for Basic Education - David Sprague and
Joan Claffey**
- 1130-1230 The IEES Network -- Products, Materials, Communications, and Exchanges
Moegiadi and Robert Morgan**
- 1230-1400 Lunch**
- 1400-1500 Summary Discussion - Joan Claffey**
- o Critical Common Needs for Improving Educational Efficiency**
o Activities with Greatest Potential Impact for IEES
- 1500-1530 Break**
- 1530-1630 Summary Discussion - Moegiadi and Robert Morgan**
- o Actions**
- o Next IEES Steering Committee Agenda and Dates**
- 1830 CLOSING DINNER**

201

JIES SECOND INTERNATIONAL CONFERENCE

PARTICIPANT LIST

BOTSWANA

Jakes Swartland
Deputy Permanent Secretary
Ministry of Education
Gaborone, Botswana

John Molutsi (PRI)
Lecturer
University of Botswana
Gaborone, Botswana

HAITI

Yves Joseph
Director of Technical Cabinet
Departement de L'Education Nationale
Port-au-Prince, Haiti

Jean-Marie LeRoy (PRI)
Ecole Normale Superieure and
Directeur de Planification
Port-au-Prince, Haiti

INDONESIA

Moegiadi, Secretary
Office of Educational & Cultural
Research and Development
Ministry of Education & Culture
Balitbang Dikbud
Jakarta, Indonesia

Ramli Suparman (PRI)
Ministry of Education & Culture
Balitbang Dikbud
Jalan Jendral Sudirman
Jakarta, Indonesia

Harsya Bachtiar
Ministry of Education & Culture
Balitbang Dikbud
Jalan Jendral Sudirman
Jakarta, Indonesia

Boediono
Ministry of Education & Culture
Balitbang Dikbud
Jalan Jendral Sudirman
Jakarta, Indonesia

Fuad Hasan
Minister of Education & Culture
Balitbang Dikbud
Jalan Jendral Sudirman
Jakarta, Indonesia

LIBERIA

Honorable E. Othello Gongar
Minister of Education
Ministry of Education
Monrovia, Liberia

Albert Coleman (PRI)
Director of Teacher Education
Ministry of Education
Monrovia, Liberia

NEPAL

IEES International Steering
Committee Representative
c/o Dr. Barbara Butterworth-Gill
Kathmandu, Nepal

Madhup K. Dhungana, Deputy Director (PRI)
New Era
Dr. Barbara Butterworth-Gill
Kathmandu, Nepal

SOMALIA

Ali Hassan Gaal
Director of Planning
Ministry of Education
Mogadishu, Somalia

Hussein M. Said, Director General (PRI)
Educational Development
Ministry of Education
Mogadishu, Somalia

YEMEN ARAB REPUBLIC

Abdoraboh Garadah
Deputy Minister of Education
Sana'a, Yemen Arab Republic

Kassim Berihye (PRI)
College of Education
University of Sana'a
Sana'a, Yemen Arab Republic

Noman Saed Alaswhadi (PRI)
Head of Planning and Evaluation
Department of Nonformal Education
Ministry of Education
Sana'a, Yemen Arab Republic

APPENDIX VI.

Policy Research Initiative Materials

Education Management Information Systems

IEES Policy Research Initiative
on Data Management Systems

Purpose:

The purpose of this research is to examine the impact of education data management systems on national level educational policy formulation in developing countries.

Research Focus:

The study will be organized around three issues:

- A) To what extent is there congruence between (1) the information MOE decisionmakers say they need, (2) the information currently available to MOE decisionmakers, and (3) the types of data and standards of data quality that the literature says decisionmakers should use?
- B) To what extent does the development of an education data system contribute to greater congruence among these factors?
- C) To what extent is the development of an education data system related to increased use of quantitative information in educational decisions at a national level?

Participating Countries:

The study will focus on three countries: Nepal
Somalia
Yemen

Procedure:

The research could be conducted as a series of case studies.

The purpose of a case study is to document the development of the data management system as completely as possible so that we can develop a fuller understanding of how that development process occurs.

A case study proceeds by making initial observations, developing tentative general conclusions that suggest particular types of further observations, making those observations, and then revising the conclusions.

The case studies could be organized around three issues:

1. What data is currently available to MOE decisionmakers?

2. What data do decisionmakers say they need for the decisions they make?
3. What types of data and standards of data quality do the literature indicate that decision makers should use?

The research could then examine (1) the extent to which these issues initially are congruent and (2) the extent and manner in which the introduction of an educational data system leads to greater congruence.

To further focus the research, the study could concentrate on four types of data:

Student enrollment data
Teacher supply and demand data
Facilities use data
Cost and financing data

The most interesting data for the case studies is likely to be:

1. Differences in the ideas and beliefs of key planners and policy makers about EMIS (at different points in time).
2. Changes in the ideas and beliefs (about EMIS) of key planners and policy makers over time.
3. Changes in actual patterns in planner's and policy maker's use of EMIS.
4. Reasons cited for use or non-use of EMIS.

Techniques for collecting data for case studies.

review of relevant documents
reports of consultants and staff working with the data system
interviews with key personnel
direct observation
participant observation
questionnaires

General strategy for implementing case study research.

Activities could proceed in three stages --

Stage 1: Initial documentation activities

- (a) summary of history of EMIS efforts
- (b) descriptions of present system

- (c) documentation of what data is collected
- (d) what do decision makers say they need?

- (e) analysis of MOE capacity for change (availability of trained personnel, etc.)
- (f) summary of intents, expectations and beliefs of key decision makers regarding the EMIS.

Stage 2: Analysis of change over time

- (a) analysis of change in decision makers' actual use of EMIS
- (b) comparison of actual use with earlier intents
- (c) summary of current (new) intents, expectations and beliefs of decision makers about EMIS
- (d) analysis of differences in the views and actions of key decision makers.

Stage 3: Analysis of case study data and development of report

- (a) analysis of each case study to identify findings and generalizations
- (b) comparison of findings across case studies
- (c) preparation of final study report
- (d) dissemination of study findings

Proposed Strategy for Developing a Research Project

<u>STAGE</u>	<u>Question to Answer</u>
1. Clarify the goals of the research.	What is this research intended to accomplish?
2. Specify the audiences for the research findings.	Who will be interested in these results?
3. Formulation of specific research questions.	What specifically will be investigated in this research?
4. Analysis of available resources: personnel and fiscal.	What staff are available to work on this study?
5. Structuring the research activities.	What activities will be conducted? On what schedule will they be conducted? What indicators of progress will be expected?
6. Specify strategy for implementation.	How will the research team be organized? What are each person's duties? How will CRC monitor the activities of the research team?
7. Budget the research activities.	How much money will be allocated to each activity? How will those funds be distributed? How will CRC ensure that the necessary receipts are collected?
8. Specify reporting system.	What format will be used to report results? On what schedule will results be reported? To whom will the results be reported?
9. Plan coordination with other participating countries	How will the research in the three countries be similar?
10. Identify potential problems in conducting the research	What problems are likely to occur? What will be the most serious problems?

Policy Research Protocol Data Management Systems

Sources of Data:

1. documents prepared as part of data system development
2. reports of consultants working on data system
3. interviews with relevant persons
4. systematic observation

Four things to look for:

1. history and current status of DMS
2. congruence between what people say and what they do
3. how people change attitudes or behavior over time
4. disagreements among groups/people

Issues to Examine

Sources of political support for a DMS

Who want the DMS? Why?

- at design stage
- at implementation stage
- during use

Who opposes the system? Why?

- at design stage
- at implementation stage
- during use

Whose support is necessary for the system to work?

- at design stage
- at implementation stage
- during use

Purposes of the data management system: INTENDED ACTUAL

What purposes will it serve?

Who determines those purposes?

Who else influences that decision?

Do the purposes change as the system is implemented?

In what ways?

What types of data are collected?

(e.g. - enrollment, staffing, facilities use, financial, etc.)

Level/unit of data collected?

(e.g. - school data, district data, regional data)

Staffing of DMS

Staff size?

How were they selected?

Who selected them?

Criteria for staff selection?

What is the long term staffing plan?

What skills and experience are represented on the staff?

How is staff organized?

Training of Personnel

What training did DMS staff have at time of hiring?

What training was provided?

(short-term, long-term, in-country, out-of-country, etc.)

Data Needs

How well articulated are the data needs?

Is data being collected to answer specific questions or is it being collected in case a future information need is identified?

Procedures for data collection

What types of data are collected?

Who designs the data collection procedures?

Who implements data collection?

How are data collected?

How are data coded and entered into the computer?

What types of data do decision makers wish to collect that are not now collected?

Data Quality

Users assessment of data quality?

Means of assuring data quality?

verification of data collection

verification of data entry

verification of data analysis

Procedures for analyzing data

Who decides what type of analysis should be conducted?

What data analysis capacity is available?

What types of statistics are most frequently used (e.g. - descriptive, cross-tabulations, inferential)?

Extent of analysis?

How much analysis is conducted before the results are presented to the decision maker?

Who conducted the analysis?

How is data analysis coordinated with the needs of education decision makers?

How are priorities set if there are competing demands for analysis?

Access to Data (once collected)

Who has access to the data once it is in the system (e.g. - central ministry personnel, regional personnel, other ministry personnel, private persons, etc.)?

Who decided who has access to the data?

Will ministry share raw data or only results of the analysis?

Degree of centralization in data access?

Use of data

Who is involved in using the data?

Who is not involved, but wishes to be?

What is the technical background of the decision makers who work with the results of the data analysis?

Reporting of results

Who has access to the reports once they are prepared?

Who decides who has access to the reports?

How will special reporting requests be handled?

On what schedule are data reported?

What procedures are used to modify the purpose or operation of the data system after it is first implemented?

IEES Policy Research Initiative
on Data Management Systems

Issues to address in documenting current status of EMIS

1. Summarize history of EMIS
 - a. prior use
 - b. why was EMIS thought to be needed
 - c. internal and external sources of support and encouragement of development of EMIS

2. Current status of EMIS
 - a. describe
 - what it is currently used for
 - who staffs it
 - to what level staff are trained
 - how staff are trained
 - how EMIS fits into administrative structure of the ministry
 - where it fits within the organizational chart of the ministry
 - relationship to offices to which it does not report directly
 - how is data reported
 - to whom is data reported
 - on what schedule is data reported

3. Intended uses of EMIS data
 - a. How do key planners and decision makers expect to use the EMIS?
 - eg., describing status, monitoring change, developing projections.
 - service function vs. policy function

4. Major issues (anticipated) in EMIS development
 - a. key issues
 - b. policy implications of those issues
 - c. emerging insights into developing/using an EMIS

IEES Policy Research Initiative
on Data Management Systems

At least twice each year, David Chapman or Jerry Messec will visit each country in this research activity.

Purpose of Research Country Visits

1. to review the detailed Country Research Plan with the CRC.
2. to hold collaborative research meeting with local research team.
3. to convey information on parallel research activities in other participating countries.
4. to review budget with Country Research Coordinator.
5. to assist Country Research Coordinator in any way possible as requested by CRC.

Activities during first Research Country Visits

1. Review progress on activities outlined in Country Research Plan with the CRC.
2. Meet with country Research Team (a) to meet staffs, (b) to review work plan with staff, (c) discuss larger research project and activities of other countries in the study, and (d) provide training as requested by CRC.
3. Meet with other Government and Education officials related to IEES Activities.
4. Work on budgetary and financial logistics with CRC.
5. Work on schedule and plan for implementation of research activities.

Length of Country Visit

Usually about one week, unless other activities require a longer visit.

IEES Policy Research Initiative
on Data Management Systems
Tentative
Schedule of Research Activities

July - November 1986	Identification of Country Research Coordinators
November 1986	Initial planning meeting - formulation of research questions - development of research strategy
November 1986 - February 1987	In-country planning by Country Research Coordinators Preparation of written research plan for each country
March - July 1987	Conduct Phase I of research activities
June - July 1987	Country visits by Research Team Leader - to review research progress - budget status - continued planning
August, 1987 - February 1988	Conduct Phase II research
November 1987	Country visits by Research Team Leader
February 1988	Research Team meeting (as part of IEES Annual Conference)
March - June 1988	Conduct Phase III Research
July 1989	Country visit by Research Team Leader
July - December 1988	Final write-up of results

IEES Policy Research Initiative
on Data Management Systems

Budget issues

Anticipated budget amounts available to support in-country research activities.

November 1986 - June 1987	\$10,000
July 1987 - June 1988	25,000
July 1988 - December 1988	15,000

Notes:

1. These amounts are for use by the CRC for the conduct of in-country research.
2. These amounts do not include the travel of the CRC to research meetings (such as this one in Nepal)
3. These amounts may change, based on AID or Project needs. These amounts are estimates.

Examples of possible uses of these monies

salaries for researchers
data collection costs
in-country travel
consultants
data analysis

Topics for Discussion

Uses of the funds within each country
Financial reporting requirements
- types of documentation required
- schedule of financial reporting
Logistics of money transfer

216

IEES Policy Research Initiative
on Data Management Systems

Characteristics of good research using the case study approach

1. Provide detailed narrative
 - 1.a. cite specific facts
 - 1.b. use examples

2. Claims grounded in evidence
 - 2.a. nature of source of evidence clearly described
 - 2.b. opinions clearly cited as opinion

3. Attention to multiple perspectives
 - 3.a. consider the points of view of many people/groups
 - 3.b. record negative as well as positive perspectives

4. Continuity of researchers
 - 4.a. use people who have access to information
 - 4.b. use people who will remain involved for entire time of study

Data Management Policy Research Initiative
Nepal Meeting

Budget Planning Issues: Discussion Points

1. Mission approval is required for
 - a) salary schedule of local personnel
 - b) in-country travel
2. Mission salary rate for local nationals
3. Need to develop resumes and biodata sheets
4. Need information about wiring money
 - need a bank account number and a name
 - does home government have objections to government officials receiving payment directly from project
5. Payment of all personnel requires a statement explaining what tasks are being performed and what outcomes are being delivered by the person paid.
6. Importance of forecasting budget needs due to the time it takes for funds to be secured and transferred.
 - A) what form should forecasting take
 - B) the need to develop a specific country budget for each country
 - C) anticipated amount available

November 1986 - June 1987	-	\$10,000
July 1987 - June 1988	-	25,000
July 1988 - June 1999	-	15,000

Data Management systems
Budget Planning Sheet

Budget

Personnel

Long term

List persons you expect to hire to assist you in conducting the research. For each person listed, complete a personnel budget worksheet.

Short term

Travel

International

airfare

per diem

incidentals

in-country

transportation

per diem

incidentals

Materials

Other direct

Budget Worksheet
Personnel

Name: Current employment:
Address: Education:
Prior Experience:

Proposed for _____ Long term employment
_____ Short term employment

Describe task for which person is being hired:

Proposed Title

Amount of time

Rate of pay

Expected outcomes of the person's work

Conditions of employment

Policy Research Initiative on Data Management Systems

Summary of research findings regarding the development and use of data management systems in developing countries:

- Efforts to develop and implement data management systems have a very mixed history of success. The more successful ones are those that emphasized lower levels of technology, local participation in all stages of system development, and respond to clearly articulated information needs.
- Information systems are most useful at the planning stage--decision makers have little ability to react to the information provided to alter policy or practice once those have been implemented.
- Decision makers frequently are unable to specify in advance what information they need in planning, policy formulation, and project monitoring activities. This task then falls to "information experts" who take it upon themselves to construct in the information system. The information specialist designs the system in a vacuum and it ends up being irrelevant from the standpoint of political users' perceived needs.
- The absence of an identified user for the information system is a major reason for the failure of that system.
- the design of data management systems generally are not based on an analysis of the management system that really operates within a ministry.
 - Management of a project or a Ministry is normally a complex structure of numerous levels of decision making with various degrees of delegation of power. Educational managers often do not have the authority to make decisions based on the information provided.
 - The list of management tasks that information systems are supposed to address often has no relationship to the managerial tasks that are actually performed in the project. Case studies show that what is being managed are inputs and in some cases physical targets. Project management is not responsible for project effects and goals and therefore is not concerned with their management. Most often, no one has the authority or clear responsibility to manage outputs and goals, and they are therefore not managed.
- Information systems often are unable to deliver usable information in a timely manner.
- Decision makers frequently do not know how to interpret and use quantitative data.
 - Primary users of the data often lack appropriate training.
 - Non-use of data often is attributed to the very limited interpretation of the masses of data.

- Incentives in developing countries to use objective information are weak.
 - Managers within ministries tend to be rewarded for securing additional funds. Careful data analysis may reveal problems that may delay the funding of additional projects.
 - Management is often more interested in showing progress reports than in using them.
 - There is some evidence that managers are more ready to accept monitoring information than information on effects.
- Ministry personnel need hard information on inputs and outputs which generally is easily obtainable. In terms of effects, decision makers require information on general trends, but no hard evidence. It therefore seems that information systems are often over-designed in terms of the information that is really required by decision makers.
- Donor agencies often express an interest in effects and goals, however, information from data systems is used by those agencies to a surprisingly limited extent.
- Outside technical assistance often is counter-productive to the development of a data system since key steps in planning and implementation are done by outsiders rather than local staff. Outside assistance should be limited to specific, short-term assignments and should be limited to advice and not include the execution of a task.

Key issues identified in Research Group Meeting of November 11, 1986

1. Identification of the demand for quantitative data. Who wants it?
2. Lack of clear definition of who is responsible for what types of data.
3. Placement of statistics/Research Division within Ministry - Where?
4. Structure of authority: does the research office have the authority to collect the data needed for the analyses that are important to collect?
5. Data Quality
6. Timeliness of data for use in decision making
7. Apprehensiveness of Ministry Officials about having correct information

It may limit their range of options

Ministry Officials sometimes use data

(a) to justify a policy or activity they were going to pursue anyway

(b) to do a favor for someone

Distinction between officials who do not want data and those who do not know how to use it.

8. To what extent does the availability of good data and policy analysis create its own demand?
9. Demonstration effect: Once data is shown to be useful, it gets picked up and used.

Possible side effect: it alters power structure among decision makers
10. What incentives are available to data providers to encourage accurate data?
11. Lack of agreement on definition of variables and on formulas for calculating statistics.
12. How to collect and integrate qualitative and supplementary types of data.
13. No one is clearly responsible for formulating data and statistics into policy issues.

- who does special policy analysis on key issues as they arise
- who is responsible for policy analysis of recurrent policy issues
- emphasis has been on presenting raw data
14. Is the data collected worth the information it provides?

15. Turnover of MOE personnel poses a dilemma for continuity of the system.
16. Research should focus on realistic issues/recommendations -- it should address problems that can be solved within the existing level of resources.



Planning Sheet
Data Management Policy Research Initiative
Nepal Meeting

TASK	STATUS
Participants Identified	
Somalia - Ali Gaal	-----
Yemen - Kassim Beriye	-----
Nepal - _____	-----
Participants Notified of meeting dates	
Somalia - Telex sent to Berger	-----
Yemen - Cable sent of Claffey for Schwartz	-----
Nepal - Telex sent to Butterworth	-----
Travel reservations made	
Somalia - Ali Gaal	-----
Yemen - Kassim Beriye	-----
Nepal - none needed	--X--
Participants Notified of Travel Arrangements	
Somalia - Ali Gall	-----
Yemen - Kassim Beriye	-----
Nepal - none needed	--X--
Ticket prepayment arranged	
Somalia - Ali Gall	-----
Yemen - Kassim Beriye	-----
Nepal - none needed	--X--
Travel Advance arranged	
Somalia - Ali Gall	-----
Yemen - Kassim Beriye	-----
Nepal - none needed	--X--
AID Missions Notified	
Somalia - Ed Tolle	-----
Yemen - Karl Schwartz	-----
Nepal - Jean Meadowcroft	-----

RTA's notified

Somalia - Mark Berger
Yemen - none
Nepal - Barbara Butterworth

Hotel Arrangements - Nepal

Chapman
Windham
Gaal
Beriye

226

APPENDIX VII.

Policy Research Initiative Materials

Teacher Incentives Systems

**IEES
POLICY RESEARCH INITIATIVE**

Teacher Incentives Project

Initial Research Design Meeting

Sana'a, Yemen Arab Republic

November 22 - 26, 1986

Table of Contents

Goals, Products, and Outcomes
What Is a Teacher Incentive System?
How To Improve a Teacher Incentive System
A Suggested Procedure for Conducting Policy Research in Teacher Incentives
Research Statement
Inventory of System Characteristics
Inventory of Incentives
Current Primary Teacher Interview Protocol
Former Primary Teacher Interview Protocol
Selected References
Organizational Chart
Budget Guideline
Budget Worksheet
Agenda
List of Participants
Project Calendar

**IEES POLICY RESEARCH INITIATIVE
TEACHER INCENTIVES PROJECT**

GOALS, PRODUCTS, AND OUTCOMES

The overall goal for the teacher incentives project is to provide relevant data, background information, systematic procedures, policy recommendations, and analyses of alternatives so that policy makers in the Ministry of Education can select and implement appropriate strategies to strengthen the teacher incentive system to achieve improved recruitment, increased retention, and effective instruction and, thereby, improve the quality of education in the nation's schools.

DESIGN REQUIREMENTS

In the proposed structure for IEES policy research initiative, Windham lists the following five structural design requirements. Each requirement will be met in the teacher incentives project:

- Collaboration - host country participants are to be full partners in the design, conduct, and evaluation of all IEES research activities.
- Comprehensiveness - IEES research activities will be designed and conducted within the context of the full EHR system and with attention to the wider social and economic determinants of EHR policy development.
- Coordination - the research projects will attempt to promote coordination among the IEES countries, within and among government agencies, and between the IEES project and other major development initiatives within the donor community.
- Continuity - through the utilization of the resident technical advisors, the recurrent use of IEES and host-country personnel, and the establishment of an integrated research management structure, the project will establish and maintain its commitment to each of the selected research topics.
- Conceptual base - the research activities of the IEES Consortium will be informed by a common methodology that will be designed, implemented, and evaluated through the joint efforts of IEES and host-country personnel.

PRODUCTS

Several products will be produced during and after the teacher incentives project. Here are the expected intermediate products:

- Preliminary statement of the problem, policy issues, and research questions.
- Inventory of system characteristics that affect teacher incentives.
- Design for policy research studies on teacher incentives.
- Recommended research procedure.
- Sample questionnaires for collecting data on teacher incentives.
- Guidelines and budget worksheets for coordinating the study.
- Preliminary review of literature on teacher incentives.
- Bibliography of the literature on teacher incentives.
- Descriptions and discussions of major teacher incentive strategies.
- Descriptions and analyses of current incentives and disincentives in each cooperating country.
- Descriptions and analyses of the current policy-making mechanisms in each cooperating country.
- Descriptions and analyses of the perceptions of teacher incentive systems by different stakeholders.
- Definition and description of critical features of teacher incentives systems.
- A procedural model for improving teacher incentive systems.
- A glossary of terms related to teacher incentive systems.

Here are the expected final products:

- Final report on each country study.

- Policy recommendations regarding teacher incentives for each country.
- Final report synthesizing the finding from the three countries.
- Policy recommendations for teacher incentive systems in developing nations.
- Report and recommendations on conducting cross-national policy research studies.
- Updated review of the literature on teacher incentives.

OUTCOMES

A major objective of the policy research initiative is to improve the capacities of research institutions both in the host countries and among the members of IEES Consortium. As a result of participating in this research initiative, it is anticipated that individual competencies and institutional capabilities will improve in these areas:

- Policy research design
- Construction of survey instruments
- Data collection
- Data analysis
- Report preparation
- Policy analysis
- Project management
- Collaboration in cross-national policy research initiatives.

What Is a Teacher Incentive System ?

The dictionary defines an incentive as "that which encourages action." An *incentive* (or a reward or a reinforcer) is anything that influences people to act in certain ways. An *incentive system* is a collection of reinforcers and a set of procedures for using them. Institutions use these systems to motivate their employees. A *teacher incentive system* is used by educational institutions to motivate teachers to efficiently carry out their responsibilities.

Common Elements of a Teacher Incentive System

All incentive systems, by definition, should have the seven common elements listed in Figure 1. Each common element is briefly discussed below with reference to teacher incentive systems.

absent) while others (e.g., praise from a customer or complaints from the public) do not have such intent--even though they may also affect the employee's performance. All incentive systems should provide rewards with the intention of influencing employee performance. In a teacher incentive system, for example, an annual salary increase may be used to maintain the teacher's classroom performance and an educational allowance, to improve it.

External source. Consequences of professional activities can be classified into four categories according to the source of incentives:

- internal to the employee (e.g., sense of accomplishment, feeling of pride, increased self confidence)

Common Elements	Intentional nature
	External source
	Target employees
	Target tasks
	Incentives
	Relationships
	Standard procedure

Fig. 1. Common Elements

Intentional nature. Most actions of an employee at work is followed by consequences that reward and punish the employee. Some of these consequences are deliberately designed to improve the employee's performance (e.g., bonus for regular attendance or fines for being

- internal to the group of workers (e.g., approval of colleagues)
- external, from clients or customers (e.g., appreciation letter from a satisfied customer)

- external, from higher levels of administration (e.g., praise from a supervisor or increased salary from the employer)

While effective incentive systems take into account incentives from all four categories and attempt to systematically organize the latter three, all incentive systems should employ the category of external incentives, from higher levels of administration. Thus a teacher incentive system should specify incentives from headmasters and educational officers.

Target employees. All incentive systems should identify a specific group of employees who are to receive the incentives. Clear identification of the employees will permit us to select the most appropriate incentives and procedures. In the case of a teacher incentive system, the target employees are obviously teachers. In a comprehensive system, we may include the administrators (e.g., headmasters) and support staff (e.g., librarian).

Target activities. All incentive systems should identify specific activities and work performances to be rewarded. This will permit us to reward the most critical and desirable activities. In a teacher incentive system, for example, such specific tasks could include coming to school on time and preparing lesson plans.

Set of incentives. All incentive systems should obviously include a set of incentives for rewarding the employees for performing the specific activities. In a teacher incentive system, monthly salaries and community recognition are two examples of such incentives.

Relationships. All incentive systems should have a logical relationship among the target employees, target activities, and the set of incentives. The incentives should be suitable for the type of employees and should be capable of influencing the target activities. For teachers, for example, a monetary bonus for regular attendance is an effective incentive for coming to school.

Standard procedure. All incentive systems should specify a set of rules to determine such things as who is to be rewarded by whom with what incentives and how often. For example, a standard procedure in a teacher incentive system may require that the teacher who was

absent for the least number of days during the school year will receive a bonus payment from the District Educational Officer during the Founder's Day celebration.

Variable Elements of a Teacher Incentive System

While all incentive systems should include the seven common elements identified above, different types of incentive systems may be designed to meet different needs. Elements of incentive systems which may vary from one institution to another are also listed in Figure 2. Each variable element is briefly discussed below.

Comprehensiveness of the system. Incentive systems may differ with respect to the number of factors they attempt to organize and to control. Professional activities are followed by positive and negative consequences which determine the morale of employees. As we saw earlier, some of these consequences are internal to the employee (e.g., sense of accomplishment), internal to the group (e.g., approval from colleagues), external from customers (e.g., letter of appreciation from a satisfied client), and external from supervisors and employers (e.g., salary raises). At a minimum, incentive systems should organize and control the last category of consequences. They may also attempt to identify, organize, and control the earlier categories. A simple teacher incentive system may specify the procedure for salary scales and steps. A comprehensive teacher incentive system will mobilize such factors as employee motivation, collegial relationship, and participation by students, parents, and the community.

Level of employees. Incentive systems may be established for employees at various levels ranging from the lowest peon to the highest executive. Teacher incentive systems may include different types of teachers with different levels of educational background and experience. It may also include administrators in the school (e.g., headmaster) and support personnel (e.g., librarian).

Subgroups. Incentive systems may treat all employees the same or provide different rewards for specific subgroups. In teacher

231

Variable Elements	Comprehensiveness of the system
	Level of employees
	Subgroups
	Individuals or groups
	Maintenance or improvement of performance
	Performance or results
	Types of incentives
	Positive or negative incentives
	Number of incentives
	Direct and indirect relationships
	Comprehensiveness of the incentive procedure
	Number of incentives
	Direct and indirect relationships
	Comprehensiveness of procedure

Fig. 2. Variable Elements

incentive systems, for example, those working in remote rural areas may receive a hardship allowance which is not paid to teachers in cities; teachers of mathematics and science may receive additional rewards compared to those teaching other subject areas.

Individuals or groups. Incentive systems may reward individual employees or groups. Teacher incentive systems, for example, may reward the single teacher who produced the best results in a national examination or the entire staff for the same achievement. The effects of individual and group incentives differ not only with respect to the target activities but also with respect to the levels of cooperation and competition among teachers.

Type of activity. Incentive systems may be used to influence a variety of physical, intellectual, and social activities. In teacher incentive systems, the activity being rewarded can be a one-time task (such as joining the teaching profession) or repetitive task (such as teaching in the classroom every day).

Maintenance or improvement of performance. Incentive systems may focus on maintaining a behavior (such as coming to work regularly) or on improving it (such as becoming more efficient). Examples from teacher incentive systems include maintaining the behavior of keeping records of student absence and improving the behavior of writing lesson plans. In general, incentives required for maintaining

235

a behavior usually differ from those required for improving it.

Performance or results. Incentive systems may reward the employee's performance or the outcomes of such performance. For example, teacher incentive systems may reward the classroom performance of the teacher or the learning gains of his or her students.

Types of incentives. Incentive systems may use a variety of rewards. These may include direct monetary incentives such as salary, allowances, and bonuses; indirect monetary incentives such as free housing or meals; and nonmonetary incentives such as job satisfaction, professional support, and recognition in the community. The types of incentives which may be included in a teacher-incentive system are listed in Figure 3.

Positive or negative incentives. In addition to rewarding employees for desirable activities, incentive systems may punish people for undesirable activities. These punishments are called disincentives. For example, in a teacher incentive system, those who are frequently absent may have a part of their monthly pay withheld; others whose students perform poorly in the examinations may be reprimanded by the headteacher.

Number of incentives. Incentive systems may include any number of incentives. Most systems attempt to influence employee activities through the control of salaries. However, the more incentives a system brings within its control, the more effective it is likely to be. Successful teacher incentive systems incorporate a variety of monetary and nonmonetary incentives.

Direct and indirect relationships. Some incentive systems may direct link the rewards to specific activities or result. For example, teachers may be given a bonus based on the number of days they come to school or on the number of students passing an external examination. Other incentive systems may have less direct links between teacher activities and the rewards. For example, teachers may receive an annual increase in their salaries whether or not they have performed efficiently during the school year. In general, clear-cut

links between activities and rewards are more effective in improving employee performances.

Comprehensiveness of the incentive procedure. Incentive systems may differ in the level of detail of the specification of their standard procedures. For example, one system may merely state that a trophy is to be awarded to the most outstanding employee while another may specify such details as which group of employees are eligible, what criteria are used for judging their activities, which judges will select the most outstanding employee, what form the award will take, how frequently it will be given, and so on. Clear, specific, and public information will ensure the effectiveness of the incentive system.

Critical Elements of an Effective Teacher Incentive System

A teacher incentive system may include all the common elements and could still be ineffective. In the discussion of the variable elements, we identified certain factors that appear to contribute to the effectiveness of incentive systems. From our analyses of different types of teacher incentive systems, especially those for primary schools in developing countries, we have identified five critical elements that are associated with effective results. These five are listed in Figure 4 (page 6) and discussed below.

Efficiency. Efficiency refers to the least costly method of achieving a particular goal or the most productive method of using a given amount of resources. To be efficient, an incentive system should contain clear statements of both goals and means. The system should also have consistency between the goals and the means: For example, the goal of recruiting talented youth to primary school teaching can be achieved only if such means as compensations are comparable to those provided by alternative employment opportunities in other sectors. Further, there should be consistency among the means used to achieve different goals of the teacher incentive system. For example, the promise of automatic college entrance after two years of primary school teaching may be a powerful means for achieving recruitment goals.

- Access to administrative information
- Additional teaching job
- Ample supplies
- Beginning salary
- Bonus for regular attendance
- Bonus for student achievement
- Cafeteria in the school
- Community recognition
- Community support
- Compatible colleagues
- Compatible management
- Cost-of-living allowance
- Distance education
- Educational allowance
- Evening classes
- Examination grading job
- Examination supervision job
- Family allowance
- Free books
- Free housing
- Free meals
- Free periods
- Good blackboards
- Good textbook
- Hardship allowance
- Health insurance
- High status in the community
- High-ability students
- Housing near school
- Increased school enrollment
- Inservice training
- Instructional materials
- Job in the Ministry of Education
- Job on educational projects
- Library facilities
- Life insurance
- Low-interest loans
- Medical assistance
- Merit pay
- National awards for teaching excellence
- Paid leave
- Participation in student promotion decisions
- Part-time job
- Participation in decisionmaking
- Pension
- Performance appraisal
- Playground facilities
- Plot of land
- Political recognition
- Positive collegial relationship
- Positive home-school relationship
- Professional conferences
- Project grants
- Recognition by headmaster
- Reduce number of dropouts
- Regularity of salary payments
- Respect from students
- Salary
- Salary increases
- Salary scales
- Scholarship
- Sharing of incentives
- Sick leave
- Small class size
- Small number of students
- Student selection
- Subsidized housing
- Subsidized meals
- Suitable school calendar
- Suitable school schedule
- Suitable teaching load
- Supervisory guidance
- Teacher's room
- Teacher-community compatibility
- Team spirit among teachers
- Textbook writing job
- Training allowance
- Transportation allowance
- Transportation facilities to school
- Travel allowance
- Tutoring job
- Useful teacher's guides
- Useful teaching aids
- Well-behaved students
- Well-furnished classrooms
- Well-lighted classrooms

Fig 3. Sample Incentives for Teachers

237

Critical Elements	Efficiency
	Equity
	Adequacy
	Professional support
	Career growth

Fig. 4. Critical Elements

However, it is an incompatible means for achieving the equally important retention goal of keeping primary teachers in classroom service for at least five years. Responsibilities for recruitment and retention are usually the domains of different units within the Ministry of Education. Unless administrators interested in achieving these different goals work together to ensure internal consistency, the results will be counterproductive.

Equity. Incentive systems only work if they are perceived as fair. Equity requires similar incentives for equals and different incentives for unequals. In teacher incentive systems, employees may be differentiated in terms of levels of education, experience, and scope of responsibility. Thus secondary graduates are generally paid a higher salary than primary graduates, experienced teachers are paid a higher salary than beginning teachers, and headteachers are paid a higher salary than regular teachers. However, many teacher incentive systems are ineffective because they ignore the troublesome task of differentiating among so-called "equals." If all teachers with the same training and experience receive the same compensation but some work harder than others, morale will deteriorate. A number of solutions have been offered to this problem. The first is to compensate teachers on the basis of the success of their students on examinations. Technical problems related to measuring the value added by a particular teacher, as well as the temptation to teach to a particular test rather than for acquisition of a

broad range of cognitive and affective goals make it difficult to effectively employ this solution. More acceptable approaches involve recognizing individual teachers' contributions to the school, regular attendance, and effort.

Adequacy. An effective incentive system should provide adequate compensation for the employees. The concept of adequate compensation is a relative one. It is defined by the opportunity costs related to choosing a particular profession. If alternative employment opportunities are available which provide higher salaries and status, then individuals would prefer them to the teaching profession. While few nations can successfully compete against the salaries offered by private sector employers, many can offset the disincentive of low salaries by providing free or subsidized housing, food, or transportation. In addition to indirect monetary incentives, nonmonetary incentives may be designed to effectively enhance the overall compensation package. Exemption from military service, choice of location for the next assignment, and recognition of effort and excellence are examples of nonmonetary incentives.

Professional support. An effective incentive system should provide the facilities, tools, materials, and guidance for carrying out professional responsibilities. Job satisfaction, which is related to conducive environments and to participatory decisionmaking, is a major motivator in all professions. In teacher incentive systems, such job factors include those items listed in Figure 5.

225

WORKLOAD

- Appropriate teaching load
- Appropriate administrative workload
- Appropriate extracurricular workload
- Fair distribution of workload
- Suitable school schedule
- Suitable annual calendar
- Released time

PARTICIPATION IN SCHOOL MANAGEMENT

- Access to administrative information
- Participation in management decisionmaking
- Participation in student promotion decisions
- Participation in student assignment decisions
- Participation in classroom assignment decisions
- Participation in subject-area assignment decisions

STUDENTS

- Respectful students
- Responsible students
- High-ability students
- Students of similar age range
- Low student absenteeism
- Low student dropout rate

COLLEAGUES AND SUPERVISORS

- Regular performance appraisal
- Feedback and guidance from headmaster
- Recognition by headteacher
- Regular classroom inspection
- Feedback and guidance from school inspectors
- Recognition from school inspectors
- Frequent visits from community leaders
- Recognition from community leaders

- Team spirit among teachers
- Compatible colleagues

OPPORTUNITIES FOR PROFESSIONAL DEVELOPMENT

- Inservice training workshops
- Evening classes
- Distance education
- Staff meetings
- Professional conferences

SCHOOL LOCATION

- Housing near school
- Meals at school or near school
- Transportation facilities near school
- Medical facilities near school
- Postal facilities near school

SCHOOL FACILITIES

- Preferred size of school
- Preferred type of school
- Well-furnished teachers' room
- Adequate school library
- Adequate playground facilities

CLASSROOM FACILITIES

- Large classroom
- Good lighting in classroom
- Good ventilation in classroom
- Good roofs and walls in classroom
- Adequate furniture
- Ample blackboards
- Ample classroom supplies
- Good textbooks
- Useful teacher's guides

Fig. 5. Teacher Support Factors

239

Career growth. An effective incentive system should provide opportunities for promotion and professional development. Educational systems with few such opportunities are perceived as dead-ends. Teachers who work in such systems often invest more of their energy in looking for other jobs and in attempting to obtain release from the teaching service than in developing their teaching skills or in contributing to school improvement. Opportunities for promotion provide effective incentives, but promotions should carry not only more status but involve greater rewards. Similarly, professional development activities should clearly result in improved skills, increased status and enhanced benefits. The selection process for the distribution of promotion and professional-development opportunities should be clearly explained and

perceived as fair. Teachers should be involved in specifying and implementing this process.

Conclusion

Teachers are the most important resource governments provide to schools. Where teachers are well-motivated, competent in the presentation of curriculum, and able managers of other classroom resources, students attend regularly and learn. By the same token, where teachers are distracted from their task by the need to supplement their income, have little in the way of collegial and materials support, and are unprepared to manage heterogeneous groups of students, little learning takes place. An effective incentive system can go a long way toward improving teacher motivation and morale and hence the quality of education.

How To Improve a Teacher Incentive System

An incentive system consists of (1) a set of inducers, facilitators, and rewards and (2) a set of implementation procedures designed to increase institutional effectiveness. All educational systems have a teacher incentive system: Salaries and instructional materials (a teacher's "tools") are examples of monetary and nonmonetary incentives, respectively, intended to induce individuals to join and remain in the teaching force and facilitate their effectiveness in the classroom. All educational systems also have procedures for the distribution of incentives, if only by default.

Not all teacher incentive systems, however, are equally effective. Some evolve as a result of ad-hoc policies of educational administrators responding to meet some special demand (such as teachers in remote regions) or in reaction to some special situation (such as a recruitment in times of teacher shortages). This type of crisis approach often results in teacher-incentive systems that are inefficient and inconsistent. Any teacher incentive system can be improved, however, by analyzing the goals and means and by bringing more of the factors related to teacher performance under systematic control.

This paper presents a procedural model for improving teacher incentive systems. The model synthesizes effective practices reported in the literature on incentive systems in general and teacher incentive systems in particular.

There are two basic requirements for any attempt to improve the existing teacher incentive system (or to design a new one): The procedure used should be both systemic and systematic. A systemic procedure looks at the total incentive system rather than at a specific component (see the list of teacher incentives categorized by type in the Inventory of Teacher Incentive Variables). The systemic

procedure requires careful consideration not only of monetary incentives but also the nonmonetary ones. It takes into account the formal and the informal incentives provided by the national government, the regional government, and the local community. It examines the complete employment cycle of a teacher, beginning with recruitment and proceeding through preservice training, assignment, probation, promotion, and termination. It takes into account the goals of recruitment, retention, and instructional efficiency. It explores and integrates the administrative, budgeting, training, and implementation components. It focuses on the needs of different regions, different types of teachers, and different curricular areas.

It is difficult to keep track of all the different variables in the systemic approach without a systematic approach. An overview of a systematic procedure is shown as Figure 1.

As Figure 1 indicates the three major stages in improving a teacher incentive system are analysis, development, and implementation. The figure implies that these stages are discrete activities following each other in a linear fashion. In reality, however, the stages frequently merge with each other, occur simultaneously, and require revision of earlier activities.

During the analysis stage, system needs and characteristics are examined, summarized, and prioritized. Different types of analysis help identify which incentives are best suited for which type of teachers to achieve which goals. The results of the analysis activities is a set of goals and objectives for the teacher incentive system.

During the design stage, the incentives and strategies most likely to achieve efficient, equitable, and adequate results are selected.

Analysis	Project team formation
	Needs analysis
	Policy analysis
	Systems analysis
	Target population analysis
	Task analysis
	Incentive analysis
	Goals specification
	Review and revision
Design	Strategies selection
	Research and revision
	System specification
	Documentation
	Review and revision
	Pilot testing
Implementation	Implementation design
	Information dissemination
	Manuals preparation
	System installation
	System maintenance
	Institutionalization
FIGURE 1. A PROCEDURAL MODEL FOR INCENTIVE SYSTEMS	

Interviewer:

Interview Date:

Hello, my name is _____. The Ministry of Education is interested in providing better incentives for teaching in order to attract and keep the best teachers in our schools. We would like your help in identifying what you liked most about teaching and what factors made you leave teaching. The information you give will be considered confidential and your name will not appear on the interview form.

From Observation: Respondent sex male female

1. How many years has it been since you left teaching? (Interviewer: If more than 3 years, stop interview)

2. In your last teaching job did you work in an urban or rural school? urban rural

3. How many class periods did you teach a week?

4. Were you considered a full time teacher or a part-time teacher? full-time part-time

5. How many students were in your class?

6. Did you have students from more than one grade in your class? yes no

7. How many other teaching posts did you serve at? Where were they?

1. urban rural
1. urban rural
1. urban rural
1. urban rural

8. When you decided to become a teacher did you have any other employment opportunities? If yes, what were they? yes no

9. Looking back what do you think were the most important factors in your decision to become a teacher?

10. Compared to what you expected before you went into teaching, did you find the (READ EACH ITEM) to be better than you expected, about the same as you expected worse than you expected?

Personal satisfaction	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Textbooks/ instructional materials	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Status in the community	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Status in the school	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Quality of your colleagues	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Support from the headmaster	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Support from the community/parents	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Opportunities for professional development	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Salary	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Regularity of payments	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Allowances	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Job security	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Number of students in a class	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Ability of students	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Classroom conditions (e.g. light, ventilation, furniture, roof, and walls)	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse
Location of school	<input type="checkbox"/> better	<input type="checkbox"/> about the same	<input type="checkbox"/> worse

11. Overall, how would you rate your satisfaction as a teacher?

- Extremely satisfied
- Very satisfied
- Satisfied
- Neither satisfied nor unsatisfied
- Not very satisfied
- Unsatisfied
- Very unsatisfied
- Completely dissatisfied

12. Name the two things you found most satisfying about being a member of the teaching profession?

13. Name the two things you found least satisfying about being a member of the teaching profession.

14. What "tools" were important to you in teaching? What I mean is what "thing" - textbooks, instructional aids - really made a difference in the kind of job you could do?

15. What difference did the presence or absence of (READ answer above) make to you as a teacher?

16. Why did you leave teaching?

17. What is the highest grade you completed?

18. Did you have any preservice training? yes no
How long was the program?

19. Do you think the training adequately prepared you for teaching? yes no

20. Name two specific ways the training helped you.

1.

2.

21. Name two ways in which you think it could be improved.

1.

2.

22. When you were a primary teacher, did you ever have any any inservice training? yes no
If so what was the content and how long was the training? Content Duration

23. Are you likely to return to teaching in the next five years? yes no

24. If no, what would it take to get you to return to teaching?

25. I'll now read you some steps that might be taken to encourage good teachers to remain in the teaching profession. For each step, please tell me whether you think it will help a lot, help a little, or not help at all to keep good people in teaching.
(READ EACH STATEMENT)

Providing higher salaries	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing appropriate allowances for urban, rural, remote teaching	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Paying salaries on time	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing housing	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing better textbooks and instructional materials	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Supplying textbooks/materials on time	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Having students who are more motivated to learn	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Improving the status of the teacher in the community	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing a greater role in the management of the school	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing discipline problems	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing unnecessary rules and regulations that waste teacher's time	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing class size	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Having more parental involvement with schools	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing better classroom facilities	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing more opportunities for inservice training	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing more opportunities for promotion	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing the age range of the students in the classroom	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing opportunities for teachers to work more collaboratively in the schools	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all

Changing the school schedule and calendar to better meet the needs of the teachers and students	<input type="checkbox"/>	help a little	<input type="checkbox"/>	help a lot	<input type="checkbox"/>	not help at all
Providing more support from the headmaster	<input type="checkbox"/>	help a little	<input type="checkbox"/>	help a lot	<input type="checkbox"/>	not help at all
Encouraging greater support from the community and parents	<input type="checkbox"/>	help a little	<input type="checkbox"/>	help a lot	<input type="checkbox"/>	not help at all
Providing bonuses and allowances	<input type="checkbox"/>	help a little	<input type="checkbox"/>	help a lot	<input type="checkbox"/>	not help at all
Making only the deserving teachers permanent	<input type="checkbox"/>	help a little	<input type="checkbox"/>	help a lot	<input type="checkbox"/>	not help at all

26. Which *three* of these do you think are the most important? Name them in order of importance.

1.

2.

3.

27. When you were a teacher did you have other sources of income?
If yes, what were they?

yes no

28. Did you have other jobs while you worked as a teacher?
What were they, how much did you get paid, and how many hours did you spend at them a week

yes no

<u>Job</u>	<u>Salary</u>	<u>Hours per week</u>
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29. Are you currently employed?
If yes, what is your current occupation and salary and allowances?
(NOTE: if a primary teacher has become a secondary teacher this should be considered a new occupation)

yes no

30. Did you need any additional training for your new job?
If so what type of training did you receive?

yes no

247

31.. We would like you to rate some of the aspects of your present job compared to teaching. Is the (READ EACH ITEM) better in your present job than it was in primary teaching.

Salary	<input type="checkbox"/> yes	<input type="checkbox"/> no
Allowances	<input type="checkbox"/> yes	<input type="checkbox"/> no
Personal satisfaction	<input type="checkbox"/> yes	<input type="checkbox"/> no
Materials and supplies you have to work with	<input type="checkbox"/> yes	<input type="checkbox"/> no
Status in the community	<input type="checkbox"/> yes	<input type="checkbox"/> no
Quality of the colleagues you work with	<input type="checkbox"/> yes	<input type="checkbox"/> no
Job security	<input type="checkbox"/> yes	<input type="checkbox"/> no
Opportunities for secondary employment	<input type="checkbox"/> yes	<input type="checkbox"/> no
Control of your own work	<input type="checkbox"/> yes	<input type="checkbox"/> no

32. All in all, how satisfied you are with your present job? yes no

35. Since you left teaching, how many different jobs did you have?

36. Is there anything else you would like to tell us about your experience as a teacher?

Thank you very much for taking the time to share your experience.

248

Standard procedures governing the distribution of incentives are documented. The result of this stage is a prototype version of the revised teacher incentive system. During the implementation stage, this revised system is installed in the educational system. This involves planning, training, implementing, troubleshooting, evaluating, and adapting it to better achieve its goals, and institutionalizing the new procedures through revision of rules and regulations.

In most systems-approach models (of which the model shown in Figure 1 is a variant), evaluation is included as a separate and critical stage, usually between the design and the implementation stages. In our model, evaluation is treated as a continuous, built-in component in all three stages: For example, in the analysis stage, the initial statement of goals and objectives undergoes a critical review and revision. Similarly, in the design stage, the teacher incentive system is piloted and revised on the basis of the evaluation data. Finally, in the implementation stage, data on the effects of the system are continuously collected and used to maintain its cost-effectiveness.

ANALYSIS

The nine steps in the analysis stage of the model are listed in Figure 1 (page 2). Each step is briefly discussed below.

Project Team Assembly.

During this step, a project team is formed which will take primary responsibility for analyzing the existing teacher incentive system and for designing and implementing an improved version. Consultants and teachers are identified to provide feedback to the team on the attractiveness of alternative proposals. The number and type of people both on the project team and consulting with it will depend on the scope and the budget for the project.

Guidelines

- The team should include policymakers,

researchers, and economists. Make sure all team members are familiar with the educational system, curriculum, teacher training program, and administrative regulations.

- Once the team is established, ask its members to identify an interdisciplinary group of consultants. The division of responsibilities between the project team and consultants will depend on the scope of the project. Ask the team to identify suitable representatives from the target population (e.g., different types of teachers) and implementers (e.g., Ministry of Education personnel, District Educational Officers, and headmasters).
- Improving the existing incentive system is a political and sociological activity. To ensure comprehensive collection of inputs, ask the project team to select representative stakeholders--people who are likely to be directly or indirectly affected by the changes in the incentives system (such as students and parents) and people who are likely to influence the policy (such as legislators, journalists, and civil service administrators).
- Brief all consultants and representatives on the purpose and the process of the project so that they could participate productively at appropriate stages.

Needs analysis.

During this step the various needs for improving the teacher incentive system are identified, defined, and arranged in order of priority. The result of this step is a prioritized list of different types of needs.

Guidelines

- Even the most powerful incentive system will be ineffective if certain basic needs in the educational system are fulfilled. For example, an incentive system cannot be used in lieu of an instructional system for training teachers. Hence, the first step in the needs analysis involves checking to see if there are major deficits in

other areas of the educational system that would impair the efficiency of the incentive system.

- The next step is to identify the main goals for improving the incentive system. In general, the goals for a teacher incentives system falls within the three categories of recruitment, retention, performance improvement. Recruitment involves attracting more and better candidates to enter the teaching force. Retention involves encouraging better teachers to stay in the teaching profession for a longer time (and encouraging marginal teachers to leave the profession). Performance improvement involves motivating teachers to become more efficient and effective in producing learning among students. In some countries, some regions (e.g., remote rural areas), some schools (e.g., for nomadic children), and some situations (e.g., low enrollment of girls), the major problem may be a lack of teachers. Then the primary need for the incentive system is recruitment. In other cases, teachers turnover may be the major problem. This suggests retention as the primary need. In some other cases, low quality of education may be the major problem. This suggests the need for improving teacher effectiveness which may range from encouraging them to come to school regularly to enabling them to be more competent teachers.
- Another set of needs for the teacher incentive system is related to its equity. The system should have both horizontal equity--same incentives for performing the same job--and vertical equity--different incentives for different levels of effort (e.g., part time versus full time teachers), different types of environments (e.g., urban classrooms versus remote-area classrooms), different levels of experience (e.g., beginning teachers versus teachers who have been in the school for 10 years), and different educational attainments (e.g., primary school graduates versus secondary school graduates). Pin-

point the situations where the incentive system could be implemented in a more equitable fashion.

- Summarize the results of this step by clearly defining the various needs in order of priority

Policy analysis.

The improvement of a centralized incentive system for all teachers in a country usually involves major changes in the governmental policy. Even improving the incentive system in a small private primary school involves policy changes. In this step of policy analysis, the administrative framework by which policies are developed, revised, and implemented is examined. The results of this analysis ensure that the improved incentive system will meet the requirements of acceptable policy and will not contradict existing policies or explicit regulations.

Guidelines

- Incentive system policies are likely to be related to other policy areas such as guaranteed employment, civil service regulations, and the role of teachers in national development. Identify the context within which teacher incentive policies (especially monetary incentives) are to be studied.
- Analyze the history of the current legislation regarding the salaries and other incentives for the teachers.
- The Ministry of Education and other Ministries (such as Finance and National Planning) have formal and informal policies affecting the incentives for teachers. Identify these policies.
- Finally, identify the major stakeholders--people who are influenced by (and who influence) changes in the teacher incentive system.
- Summarize the information collected during this analysis in the form of a report on the policymaking procedure. Highlight all aspects of the procedure which are likely to affect the revision of the teacher incentive system.

Systems analysis.

During this step various needs, inputs, processes, outcomes, elements, relationships, opportunities, and constraints related to the educational system are identified. The results of this analysis permit design of an incentive system which is compatible with all other subsystems such as those dealing with instruction, evaluation, or teacher supervision. The Inventory of Systems Characteristics provides a convenient checklist for conducting the systems analysis.

Guidelines

- Begin this step by identifying the characteristics of the larger educational system of which the teacher incentive system is a part.
- Identify parallel subsystems (within the educational system) that interact with the teacher incentive system, and analyze their characteristics. For example, teacher supervision is a subsystem that interacts with the teacher incentive system.
- Go beyond the educational system and identify the relevant characteristics of the society and of the local community. Decide what resources and constraints from the society and the community may affect the operation of the teacher incentive system. For example, the inability or unwillingness of the community to collect money from parents to support the school will affect the teacher incentive system if the design requires such support. It is also important at this stage to identify any unintended consequences of the new system. To use the same example, a requirement of community support may financially overburden some communities to the point where they are forced to give up the school.
- Return to the teacher incentive system and identify the people involved in implementing the existing system and their characteristics. For example, educational administrators responsible for preparing payrolls and disbursing teacher salaries

are key actors in implementation. If the incentive system is to work the difficulties they face in fulfilling their job responsibilities must be addressed.

- Identify the major constraints in the system which have to be taken into account in revising the teacher incentive system. These include recurrent cost allocations, annual schedules, available and required number of teachers, and transportation and communication facilities.
- Summarize the results of the systems analysis by highlighting information that has to be considered carefully in improving the teacher incentive system.

Target population analysis.

The group of employees whose activities are to be influenced by an incentive system are referred to as the target population. In a teacher incentive system, the target population is obviously teachers. During this analysis, the important characteristics of the target population are identified and an effort is made to discover teachers' perceptions of existing incentives and disincentives. The results of this analysis will ensure that the improved incentive system will suit the needs of the teachers.

Guidelines

- Begin by identifying the general characteristics of teachers. Find out what educational qualifications, teacher training, and experience they have. Prepare a list of these general characteristics and of the types of incentives they would like to receive (and disincentives they would like to avoid).
- The effects of the salary and of other monetary incentives depend on the opportunity cost: what the teachers are likely to receive in available alternative employment. Find out about these opportunity costs.
- Not all incentives are equally effective for all. Information is needed about the different needs of different categories of teachers. Through interviews and sur-

veys, find out the differences in the incentives preferred by men and women; teachers of language and teachers of mathematics; teachers in well-equipped urban schools and teachers in impoverished rural schools; young and old teachers; beginning and experienced teachers; elementary and secondary teachers; and unqualified and qualified teachers.

- Find out various factors which are perceived to be disincentives by all teachers and by special subgroups of teachers. These disincentives are usually associated with living conditions and job conditions. The removal of disincentives are sometimes more important than the addition of new incentives, especially in recruiting teachers for (and retaining them in) remote areas.
- Summarize the results of the target population analysis by preparing a table of suggested incentives for all teachers in general and each special subgroup of teachers in particular.

Task analysis.

During this step the various functions, jobs, and tasks performed by teachers are identified and their interaction with incentives are analyzed. The results of this step enable identification of those tasks which are intrinsically rewarding (e.g., participation in making important decisions related to the school) and intrinsically punishing (e.g., collecting donations from unwilling parents or teaching unmotivated students).

Guidelines

- Observe the teachers inside and outside their classrooms. Interview them about their typical and unusual activities. Analyze the information to identify various roles, functions, and tasks.
- Classify teacher tasks into such functional areas as instruction, evaluation, classroom management, participation in school management, and preparation of

instructional materials. Subdivide each function into specific tasks and subtasks. For example, the instructional function consists of the two tasks of lesson preparation and lesson presentation. Lesson preparation, in turn, consists of the subtasks of selecting the lesson topic, specifying the instructional objectives, preparing or collecting visual aids, sequencing the contents of the lesson, and estimating the time required; lesson presentation consists of presenting information, asking questions, and providing feedback.

- For each major function, identify those tasks which are perceived to be rewarding and those which are punishing. Analyze the tasks to find out what makes them rewarding or punishing.
- Analyze the stages in the career of a teacher and identify critical activities in each. A typical teacher goes through recruitment, training, initial assignment, induction, probation, tenure, transfer, promotion, and termination. Identify the positive and negative factors associated with each of these stages.
- Observe and interview head teachers and other administrators in the school. Identify their functions and tasks and rewards and punishments.
- Summarize the results of the task analysis by preparing a table of career stages, functions, and tasks for different types of teachers and the incentives and disincentives associated with each.

Incentive analysis.

During this step various incentives and disincentives which currently influence the teachers' behaviors are identified and analyzed. The results of this analysis help build upon existing effective incentives and reduce the effects of various disincentives. Procedures used in this step involve a review of documents specifying various policies, regulations, and standard procedures related to teacher incentive systems and interviews with teachers, headmasters, and educational administrators.

The Inventory of Teacher Incentives provides a convenient checklist for conducting this analysis.

Guidelines

- Begin by identifying monetary incentives. These include salaries, allowances, bonuses, and other benefits which can be directly converted into money. Compare these monetary incentives with the cost of living for typical families of teachers and with the monetary incentives for alternative employment.
- In most developing countries, teachers supplement their income through additional jobs. Through sensitive interviews and careful observations, identify the nature of these jobs.
- Identify additional employment opportunities for teachers within the educational system. These opportunities could include teaching in evening classes for adults, tutoring, writing textbooks and other instructional materials, and participating in educational development projects. Estimate the proportion of teachers who could be provided additional employment in these jobs.
- Identify major nonmonetary incentives. Begin at the national level and analyze the opportunities for political recognition, instructional support (e.g., teacher's guides) and professional development (e.g., inservice training workshops).
- Move to the community level and identify nonmonetary incentives in the areas of community relationship (e.g., status of teachers in the community) and quality of life at the school location (e.g., transportation facilities near the school).
- Move to the school level and identify nonmonetary incentives related to administration (e.g., participation in school decision-making), workload (e.g., flexibility of schedules), colleagues (e.g., positive peer relationships), and facilities (e.g., well-stocked libraries).
- Move to the classroom level and identify

nonmonetary incentives related to environmental quality (e.g., lighting and ventilation), materials (e.g., teachers' guides), and students (e.g., well-behaved children).

- Summarize the results of the incentives analysis by preparing a balance sheet of incentives and disincentives which currently influence the recruitment, retention, and performance of teachers.

Goals Specification.

During this step, the information collected through the earlier analyses are used to specify the goals and objectives for the revised teacher incentive system. These specifications ensure that the design the improved incentive system is based on relevant data.

What is needed is not a single overarching goal for the entire teacher incentive system, but a series of goals that take into account different needs of different types of teachers.

Guidelines

- Begin with a statement of long-term goals for the teacher incentive system. Think in terms of 10 or more years and specify the outcomes to be achieved by the incentive system. Then think of a series of short-term goals to meet the urgent needs in the educational system.
- Some goals should relate to outcomes (e.g., retention of teachers) while others relate to the process (e.g., all salaries are paid within the first five working days of each month).
- Specify the monetary goals for maximizing the incentive value of the recurrent budget and nonmonetary goals for maximizing the effects of such variables as job satisfaction, feedback, and opportunities for professional growth.
- Specify different goals for different types of teachers and different stakeholders. For example, the goals for rural teachers may differ from those for urban teachers; those for women teachers may differ from those for male.

- Specify narrow goals limited to a specific subgroup such as rural primary teachers. A narrow goal may be to discourage primary teachers from becoming secondary teachers. Balance these goals with broad goals that deal with the entire educational system. From this perspective, we may look upon primary and secondary teachers as coming from the same pool of human talent and encourage free mobility between these two sectors.
- Summarize the results of this step by producing a list of goals for the teacher incentive system.

Review and revision.

During this step the goals which reflect the results of the earlier analyses are critically examined and revised. The result of this step is a final set of goals that best reflect the needs of the teacher incentive system.

Here are some guidelines for conducting this review and revision:

- Begin by circulating the statements of goals from the previous step to your consultants and representative stakeholders. Ask them for their inputs and feedback.
- Supply a checklist to your reviewers to help them critically examine each goal and to evaluate its potential efficiency, equity, adequacy, professional support, and opportunities for career growth, and any unintended consequences.
- Have your reviewers compare the goals for internal consistency. Have them identify and revise the goals which contradict each other.
- Have your reviewers examine the goals for their feasibility within the financial and personnel constraints of the educational system.
- Summarize the feedback from the reviewers and use the information to revise the goals to make them more consistent, equitable, feasible, and effective.

Design.

The six steps in the design stage of the procedural model are listed in Figure 1 (page 2). Each step is briefly discussed below.

Strategies Selection.

During this step appropriate incentives and procedures to meet the goals (identified earlier) are selected.

- Guidelines. Begin by selecting monetary incentives. In most cases you have to reexamine the salary system for rewarding primary teachers. Depending upon your major focus (recruiting, retaining, or improving teachers) a number of strategies are available. In exploring the salary you will have to ensure that it is adequate to attract or retain competent people given other jobs available to them. You will have to examine the starting salaries, various skills and steps in the salary organization, annual raises, merit increases, deductions from the salaries, and regularity of salary payment. Related to the salary are such issues as allowances, bonuses, and benefits (paid holidays and medical aid). If the level of the salary is likely to be low, attempts should be made to employ the teachers officially in additional teaching jobs (in adult education, for example), or other jobs related to primary education (such as administering and grading national examinations, and writing textbooks). If such profession-related activities are not appropriate for some reason, identification of part-time jobs in national developmental projects could prove a powerful incentive. Another approach to improving monetary incentives is to shift part of the cost of such incentives away from the public sector to community and/or private individuals. For example, members of the community can contribute to a school fund and use the money to provide additional monetary rewards to teachers or they may provide housing to teachers.

- Nonmonetary incentives should also be considered. These incentives can be identified from analyzing the data collected earlier in the incentives analysis stage. In general, the following strategies appear to be appropriate and elective non-monetary incentive systems:
 - A. Instructional support systems. This type of incentive is especially suited to encourage increased effectiveness of teacher performances. The incentive involves providing the teacher with appropriate tools, materials, and equipment. For example, this incentive strategy requires that students are supplied with textbooks and notebooks and classrooms are provided with blackboards and chalk. In addition, teachers are provided with guides (to help them plan and deliver their lessons) and teacher aids (maps, charts, and models). A library of reference books and supplementary materials both for the teachers and for the students represents another form of instructional support.
 - B. Feedback systems. Giving information to the teacher on the effectiveness of his performance will contribute to the improvement of the performance. Feedback on a person's performance is usually found to be effective because it indicates how well that person is performing and how the performance can be improved. Such feedback can be from the students, parents, fellow teachers, headmasters, inspectors, and outside evaluators. To use a feedback system as an incentive, a number of activities including the clear specification of teacher functions and tasks are required.
 - C. Inservice training. Training may also be used as an incentive. It provides additional skills and competencies to the teacher and appropriate training can improve the efficacy and the self-confidence of the teachers.
 - D. Job enrichment or redesign. Assuming the analysis step lead to a description of teacher tasks and functions in the classroom, it is possible to identify those activities which teachers dislike, that is, consider to be disincentives. The teacher's task can be appropriately modified and tasks which are considered dull, boring, or mechanical tasks may be redistributed to other people. For example, drill and practice activities and classroom maintenance functions which require administrative chores such as filling out forms and collecting monies can be entrusted to volunteer helpers and to others. Another approach to the redistribution of teacher's tasks might include cross-age peer tutoring in which monitors and students from higher grades are entrusted with helping younger students.
 - E. Community participation. The community can play an important role in providing a number of nonmonetary incentives to the teachers. School management committees consisting of members of the community can recognize and award outstanding teachers by publicizing their performances in the local newspapers or in local meetings. A special teacher recognition week may be celebrated during which outstanding teachers are recognized for their contributions to the community. The community can also find various ways of increasing the importance of the teacher vis a vis community life.
- In reviewing possible incentives it should be remembered that each incentive (monetary or nonmonetary) has a minimum threshold level. In other words, the incentive loses all meaning if it does not reach that level and, in fact, constitutes a disincentive. This is true with areas including respect to compensation, instructional support, participation in the school management, and other job factors. Although the selected strategy may focus on one or two specific monetary or non-monetary incentives, care should be taken to ensure that no major disincentive exists or no major factor related to teacher performance is below the minimal level.

- **F. Team building.** A number of approaches can be used to improve the cohesiveness among teachers, the principal, and other staff members in a primary school. For example, by using team teaching more than one teacher can be responsible for a given grade. Similarly, a number of school management decisions are more readily implemented if teachers are involved in the decision-making than if they are not (e.g., student discipline decisions).

Research and revision.

The combination of incentives selected in the previous step is carefully studied and revised during this step.

- **Guidelines.** For any given incentive strategy, there is available research data from other developing nations where it has been used. Even if these data are not directly applicable to your country, they may suggest a number of alternative approaches. In addition, within the country some information may be available on similar incentives systems at other levels of education (e.g., secondary education) or in other types of jobs (e.g., civil servants at a comparable level). This information should be carefully collected, synthesized, and analyzed to suggest appropriate approaches to the generation of new incentives schemes. Based on the information, the original ideas can be modified and made more effective.

Systems Specification.

During this step the policies and the regulations related to the new teacher incentives system have to be specified and the following policy issues addressed:

- **Whose performance is to be rewarded?** Whether the incentive system will serve all teachers or a subset of teachers, or trainees, or headmasters needs to be specified. At the same time, decisions must be made about the treatment of individuals with similar and different

characteristics in each subgroup.

- **What are the criteria for evaluating teacher performance?** What types of performance are to be rewarded in the incentives system? The performance could be a simple one of joining the teaching force (if the goal is recruitment) or a passive one of coming to school regularly (if the goal is to reduce teacher absenteeism), or an active one of conducting classes to the satisfaction of the principal, or improving student scores on reading tests.
- **Who will evaluate teacher performance?** A system for evaluating teacher performance must be developed and monitored. Responsibility must be assigned to the headmaster, peers, a community steering committee, the inspectors from the Ministry of Education, or some combination of the above.
- **What types of incentives are to be used?** Who will provide the incentives? Is the teacher to receive the incentives from the Ministry of Education (as in the case of salaries), from the headmaster (e.g., special letter of commendation for above average work) or from members of the community (e.g., Outstanding Teacher of the Year Award).
- **How frequently are the incentives awarded?** Careful consideration needs to be given to the duration for the teacher's performance, the frequency (monthly or annually) with which incentives will be provided, and the delay between the performance and the award of the incentives.

Documentation.

In this step the policy and the standard procedures related to the new incentives system are written down. These documents are to be used both for receiving expert review and feedback and also for the actual implementation of the system. The documents will include an administrative manual which will explain exactly how the new procedure is to be implemented and various informational materials which will incorporate the

collaboration of teachers, school personnel, and members of the community. The documents will be written in appropriate language with step-by-step instructions for implementing the procedure and a number of examples for clarifying such concepts such as the type of behaviors and the type of incentives. They will be edited by various language editors to ensure the final informational package is presented in a clear and attractive fashion.

Review and Revision.

The new system, in the shape of various documents, will be given next to a group of experts for their review and comments. These experts will include teacher trainers, ministry personnel, educational economists, representative teachers, and government officials. The experts will be provided the most relevant documents, a background rationale, and a checklist outlining the types of feedback required from them. The experts will analyze the new system from their particular perspectives and predict potential consequences of implementing the new system. In their analyses they will focus not only on the anticipated positive comments but also on various potential unanticipated negative consequences. The experts will further study the effect of the new incentive system on other aspects of teacher performance. For example, rewarding teachers after two years of their service by admission to the national university may act as a strong incentive for recruitment but may actually serve as a disincentive for the remaining in primary teaching. The experts will also estimate the feasibility of implementing the strategies and indicate areas where they have doubts of some ideas being implemented. After these expert reviews are completed and their feedback collected, the teacher incentive strategy must be revised to take into account such feedback.

Pilot testing.

In this step the teacher incentives system will be tested out on a small scale to determine its feasibility and to streamline its implementation

procedure. An evaluation design will be prepared which will specify how the system will be tried out, and how both process and outcome data will be gathered to see how effectively the system is being implemented and how effectively it achieves the desired goals. The design may involve comparing a set of schools or regions with the new incentives system and comparable schools as control groups without the incentives system. Based on this design suitable schools or regions will be selected for experimental purposes. The new incentives system will be implemented for a school year or more depending on the nature of the system and on its potential impact. Data will be collected on how well the system is being implemented in comparison to the standard procedures and also on its effect on the teachers both in terms of the intended outcome of the teacher incentives system as well as in other areas. Both teacher performances and attitudes will be the foci of these data collection activities. Additional data may also be collected in terms of student performances, headmaster and other school personnel complaints and preferences, and the perceptions of the community. These data will be analyzed to identify the strengths and weaknesses of the new system. Appropriate strategies will be devised to accentuate the former and to reduce the latter. The system which is revised on the basis of the evaluative feedback may undergo another round of pilot testing before being implemented on a larger basis.

IMPLEMENTATION

The six steps in the implementation component of our procedural model for establishing a teacher incentives system is given in Table 3. During this step the new incentives system which has been pilot tested and appropriately revised will be implemented on a large scale. Here are some guidelines for each stage of the process:

Implementation Design.

Even before the development of the system and of its evaluation, a number of analysis activities will be undertaken to identify factors which can influence the way in which the new system will be implemented. The target population analysis will provide the ministry with information about the teachers' attitudes toward changes in their incentives system. The systems analysis will yield information on where various institutions are situated and how they will react to change in their activities. The decision-making processing, institutional receptivity to new ideas, conflict resolution procedures, and communication channels within and among various schools will be identified. In addition, the relationship between communities and schools and the potential acceptance to communities to increased participation in teacher incentives will be identified. The characteristics of the new teacher incentives system and the implementation procedure will also be analyzed when they are specified. This analysis will focus on such factors as simplicity, visibility, divisibility, compatibility, cost, and relative yield of the new system. Based on this analysis, prepare a general diffusion strategy for the new teacher implementation system. This strategy will have to be modified to accommodate the special needs of different regions, different types of schools, and different types of leaders.

Information Dissemination.

Individuals and institutions who are likely to participate in the implementation of the new teacher incentives system should be informed of the plans, progress, and problems associated with the new approach. The type and amount of information and the way in which it is to be presented will be matched to various stages of adoption. In the early stages, for example, long before the system is ready for implementation, brief descriptions of the system will be distributed to various educators, headmasters, and teachers to increase the level of awareness of the new approach. This information can be disseminated through newspapers and other

media. Another type of activity to increase the awareness of future implementers will be to send them a questionnaire to solicit information about the needs and concerns of various stakeholders. At a later date, information related to various actual or anticipated concerns of teachers and school personnel should be distributed. This could be in the form of a brochure in a question and answer format and written to identify and to accept concerns and to provide realistic answers to promote continuing discussions. This may be followed by another document with more detailed information about the system and the results of various evaluative studies. Not all of the information needs to be disseminated in a printed format. Radio announcements, and videotape demonstrations can be used in different stages to provide information. Demonstration in the pilot schools can also be a major source of information about the new teacher incentive system. Educators from other regions may be encouraged to visit these schools and observe effects of the new teacher incentive strategy.

Manuals Preparation.

The administrative manuals for the implementation of the new teacher incentives system are to be prepared next. Such a manual has been developed in the previous stage, but it has to be revised on the basis of the pilot test. Different types of people have to be oriented and trained to implement the new teacher incentive system. MOE officials, district and regional educational officers, the school manager, the head master, community steering committees, other school personnel, parents, and students--all have to be informed, prepared, and trained to accept and benefit from the new incentive system. Orientation materials for all of these groups have to be prepared.

System Installation.

Successful and systematic installation of the new teacher incentives system will significantly contribute to its effectiveness. Before the new system can be installed, schools have to be

carefully prepared. One aspect of this preparation will relate to physical facilities, materials, and equipment (if instructional support is a major element of the new incentives system). Another aspect is related to informing, orienting, persuading, and training different people. The project staff will work closely with school personnel in these preparatory activities. They will especially instruct headmasters and others who are involved in the day-to-day maintenance of the system. During the first few critical weeks of implementation, the project staff will carefully observe what is happening in different regions and provide appropriate corrections if various problems arise in the field.

System Maintenance.

The new teacher incentives system should be monitored carefully during the first few months to collect information on local problems, adaptations, and improvements. Problems in different schools and regions have to be anticipated and appropriate technical assistance should be provided to improve the local implementation of the system. During the first year additional information should be

provided and the ministry should fulfill a clearinghouse function of sharing information related to the improvement of the activities.

Institutionalization.

The ultimate goal of the activity is not only to implement the system but also to institutionalize it so that it becomes routine and self-supporting. Toward this goal, before the termination of the project, a plan for such institutionalization should be prepared by the actual implementers of the system with the project staff just providing technical assistance. The staff will then gradually withdraw external monetary support and technical assistance. School teachers and existing ministry officials will then be able to implement the new system efficiently and effectively. Provisions should be built into the system, however, so that it is dynamically upgraded and updated to keep responsive to new and unique demands.

RESEARCH STATEMENT

Statement of the Problem

Nations at every level of development are debating issues related to incentives for teaching. The current discussion of teacher incentives is reflective of a profound concern with the quality of schooling and, in particular, the quality of teaching. In many countries, there is sufficient evidence to suggest that average student achievement has declined while, at the same time, the academic ability of those entering teaching has decreased relative to earlier cohorts. Although the causes of the decline differ from country to country, the net effect is similar. Systems are experiencing difficulty in recruiting individuals of the quality desired and in retaining those recruited in teaching. In developing nations, however, where school systems are still expanding, infrastructures (communication, roads, etc.) are incomplete, and fiscal capacity is low, the problem of identifying and funding appropriate teacher incentives is of a much greater magnitude than it is in countries where both human and material resources are not so sharply constrained.

The research on incentive systems suggests that effective reform of an existing system must be consistent with the goal of improving teacher performance. The danger, evidenced in a great deal of the literature, is reduction of the goal to one or more subgoals, such as recruiting higher quality individuals into teaching or increasing retention. Reductionism is a danger particularly where responsibility for teachers is divided among units within a ministry or among ministries. Discrete treatment of subgoals generally leads to overall inconsistency in the system, while integration of recruitment and retention subgoals into a long term plan for improving

teacher effectiveness produces a more flexible and effective system.

One advantage of emphasizing teacher effectiveness in discussions of incentives is that it forces the debate beyond the narrow interests of particular units responsible for one aspect or another of the teacher service. This, in turn, may generate greater support both within the ministry and across ministries for strengthening incentives for teaching. A second and more important advantage is that each incentive will be measured directly against the value it will potentially add to improving teacher performance over time. Such procedure makes explicit the tradeoffs between the goals and means related to recruitment and those related to retention and therefore maximizes the set of options available to policy-makers.

Policy Issues

If the problem is how to improve teacher productivity (that is, how to help teachers facilitate student learning), given current resource constraints, the major policy issues are who is to be recruited at what price, and who is to be retained at what price. Price, in this context, connotes the total package of rewards, including both direct and indirect monetary and non-monetary benefits. In many countries, the price of recruitment includes both preservice training and beginning teachers salaries while the price of retention includes not only salary and allowances but also inservice training, headmaster and inspectors' time devoted to supervision, etc. The magnitude of these investments in both salary and training require justification in terms of their efficiency in producing the desired teacher behaviors.

If, for instance, a significant portion of those trained for teaching never teach or leave the service before government has realized a sufficient return on its investment in training, a hard look has to be taken at the characteristics the system is recruiting for. It may well be that entry characteristics are too high relative to the compensation package. If this is the case, one option is to reduce the entry requirements (and possibly salaries) and provide greater inservice training and instructional support for teachers. Thus, if the target group for recruitment consists of secondary graduates, government may decide to temporarily admit secondary dropouts to teacher training until market conditions or government fiscal capacity changes.

Similarly, if teacher behaviors do not meet the minimal standards of performance, such as regular attendance at school and in the classroom, both the compensation package and the rules and regulations for tenure and promotion need to be examined.

Obviously, the first step in addressing issues related to providing incentives for teacher productivity is to define the minimal acceptable behaviors for payment of salary and those set of behaviors which will be rewarded beyond salary (by promotion, inservice opportunities, public recognition, etc.).

This requires a conceptualization of the factors influencing different levels of teacher performance.

Theoretical Framework

Adequate teacher performance includes a range of behaviors extending from regular attendance at school and in the classroom to classroom management, lesson delivery, lesson design, and student evaluation and guidance. Outside the classroom, teachers are often typically expected to participate in school level decisionmaking, assist each other and meet with parents. The literature suggests that the

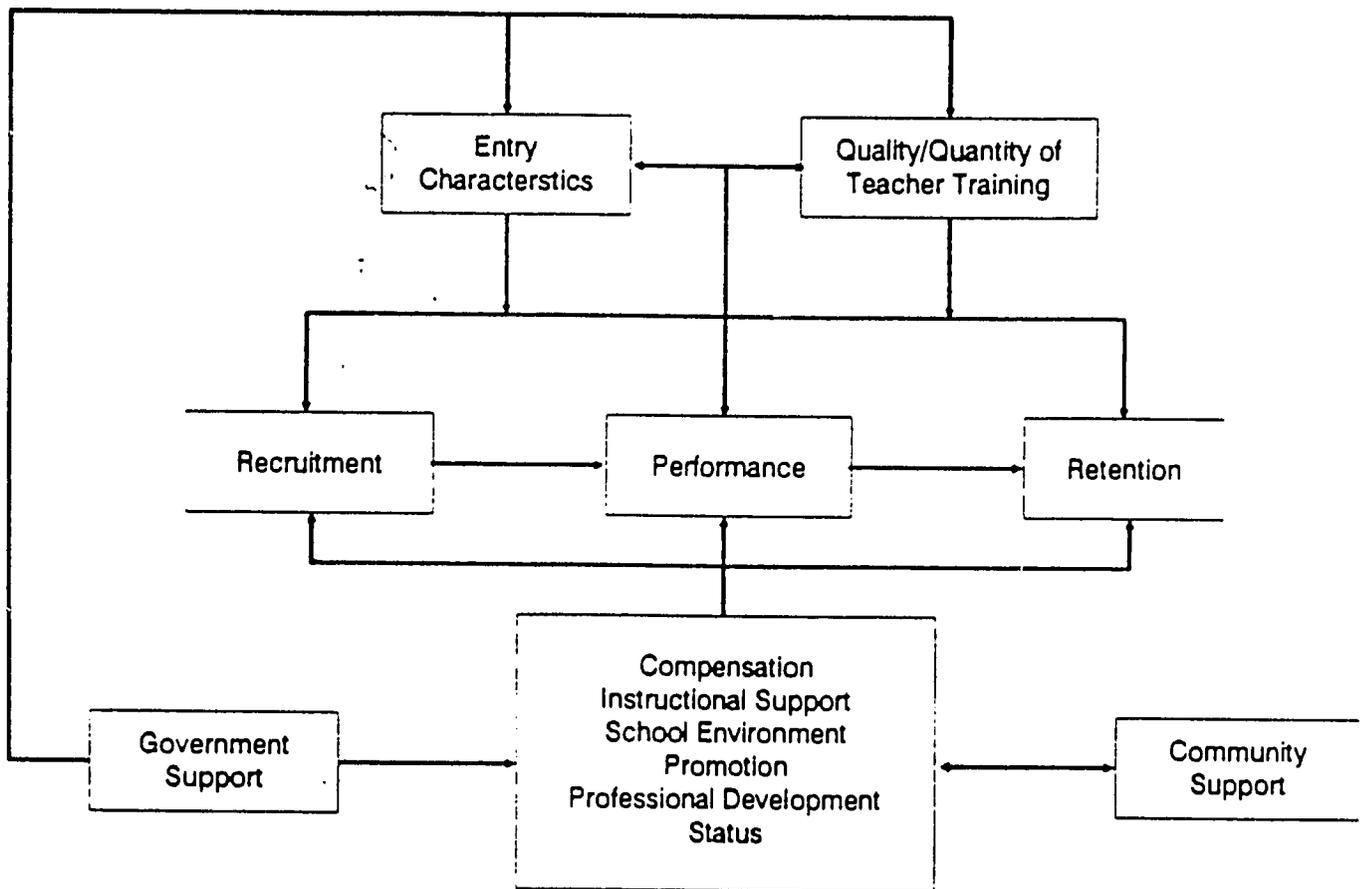
factors which influence teachers' willingness and ability to carry out their responsibilities effectively are as follows:

- entry characteristics (academic ability, the quantity and quality of their prior schooling);
- nature and type of teacher training;
- adequacy of the compensation package;
- quantity and quality of instructional support (texts, materials, and supervision);
- opportunities for promotion and advancement;
- quality of the school environment (colleagues, students, management structure, and facilities); and
- status in the community.

The relationships between these factors and teacher performance is shown in Figure 1.

As Figure 1 suggests, there is an identity between the factors that affect performance and those which affect the subgoals of recruitment, and retention. Teaching is one of the few professions in the modern sector that the school going public is familiar with. Individuals who have gone to school know the status of the teacher in the community, the salaries of teachers, and their working conditions. This knowledge, as well as their own experiences in school, determines, to a large extent, their perception of teaching as an attractive occupation. The status of the school system thus feeds back into the ability of the teacher service to recruit new teachers. In addition, there is also considerable research which suggests that the individual's perception of the quality of his/her first teaching assignment (school environment, opportunities for promotion and professional development, status in the community, instructional support), as well as his/her sense of success in teaching

Figure 1. Teacher Incentive Model



262

also affects decisions related to exiting or staying in the teaching service.

Limitations of the Study

The complexity of the relationships described in Figure 1 suggest that no single study can examine all the factors influencing teacher performance. Consideration, for instance, of the efficiency of teacher training and, therefore, both its absolute value and its relative value as an incentive for performance would obviously require a separate study. By the same token, since teacher incentives vary with the school level, it would be difficult to deal with more than one level at a time. For these reasons the study is limited to the investigation of the efficacy of the current incentive system for primary teachers and alternatives for strengthening it.

Research Questions

The overall goal of the teacher incentives project is to provide relevant data, background information, systematic procedures, policy recommendations, and analysis of alternatives so that policy makers can select and implement appropriate strategies to strengthen the incentive system for teacher performance. In order to achieve this goal, information will be gathered from policy makers, present teachers, and former teachers on their perceptions of current incentives and their suggestions of how these incentives could be made more effective. In addition, background information on the school system and the teaching force is necessary to set the context for analyzing the responses. These information needs are summarized below in the form of sets of questions.

1. Current Status

- What are the characteristics of currently serving teachers (educational attainment, age, gender, marital status, national

origin, part time/fulltime, etc.)

- How many teachers are actively teaching and how much do they get paid?
- How much could be saved by removing non-active teachers from the payroll?

2. Recruitment for Teacher Training

- What is the teacher turnover rate (national, regional, district)?
- What are the opportunity costs for primary teaching for each level of educational attainment of recruits and different types of teachers?
- What are the per-student costs of teacher training?
- How many years of teacher service are required to realize a return on investments in training?
- Is teacher training considered an incentive for entering the teaching service?
- Are there alternative forms of training which might be less costly (e.g., a concentration in primary education at the secondary level or programmed teaching)?
- How closely does the teacher training curriculum relate to the realities of primary school teaching?
- What are the dropout and graduation rates in teacher training institutions?
- What proportion of those who graduate actively serve as teachers?

3. Teacher Retention and Attendance

- How are teachers assigned to schools?

- What length of time is the usual period of assignment?
- How long does the average person remain in primary school teaching?
- What factors influence teacher persistence and exit?
- How regularly do teachers attend school?
- What factors encourage high attendance rates?
- How do rates of teacher attendance vary with teacher characteristics, region, type of school (complete/incomplete), or location of school (urban/rural remote)?

4. Teacher Income

- What strategies do teachers use to supplement their income?
- How do these strategies differ according to the location of the school and the gender of the teacher?
- Which supplementary income strategies are officially sanctioned?
- What are the effects of secondary employment on teachers' effectiveness in the classroom?
- What types of secondary employment are complementary to teaching?
- What are the possibilities for government employment of teachers in second jobs (i.e., work at the MOE, work in the village as an adult education specialist)?

5. School Income Generation Activities

- What are the current sources of income for primary schools (e.g., government aid, private contributions, tuition, fees, etc.)?

- What school income generation activities are appropriate for different regions?
- What strategies have been tried in which locations with what results?
- What alternative approaches are available for distributing additional income among teachers?
- What are the advantages and disadvantages of alternative income sharing approaches?

6. Perceptions of Incentives

- What do teachers, former teachers, teacher trainees, administrators, educator, and public perceive as incentives and disincentives for the recruitment, retention, performance of teachers?
- How do these perceptions differ from one group to another?

7. Remote Area Teaching

- What are the incentives and disincentives for teaching in remote areas?
- What are alternative strategies for increasing incentives and/or decreasing the disincentives?
- What are the likely costs and benefits of these alternative strategies?

8. Community Participation

- What is the extent of current community support for teachers' food and housing?
- What types of teacher incentives are best provided by parents and the community?

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- How should the government formalize community participation in the support of schools?

9. Evaluation and Feedback Systems

- What types of formal evaluation of teaching performance are undertaken?
- What is the relationship between formal evaluation of performance and tenure, promotion, and salary increases?
- What types of formal and informal feedback do teachers receive from headmasters, inspectors, students, parents, and community leaders?.
- What is the effect of recognition, indifference, and/or criticism on teacher performance and morale?.
- What formal mechanisms can be used to increase the frequency of feedback and to make it more objective?

10. Instructional Support

- Do teachers perceive instructional materials as an incentive?
- What are the relative incentive values of textbooks for students, teacher's guides, programmed teaching modules, and teaching aids?
- What are the costs of these materials?
- How can their life be extended and their costs be (at least partially) recovered?
- What is the relationship between the availability of instructional materials and teacher attendance?

11. Teacher Status

- What is the public perception of the status of primary school teachers?
- What is the effect of such perception on the morale of teachers?
- How can the status of teachers be enhanced?

12. Opportunities for Professional Development and Promotion

- What types of inservice training programs are available for the professional development of teachers?
- Are inservice training activities perceived by teachers as incentives?
- What opportunities for promotion currently exist?

13. School Characteristics and Job Satisfaction

- Do the characteristics of schools (e.g., size, enrollment, location, complete/incomplete cycle, etc.) affect teachers' job satisfaction?
- How are classrooms, students, and workloads assigned to teachers?
- Do teachers perceive workloads as being distributed equitably?
- To what extent do teachers participate in the school management and administration?

Methodology

The study of teacher incentives is primarily a descriptive one. First, the current status of the system will be presented. Secondly, current rules and regulations affecting primary teacher will be summarized. Third, relevant policy makers, serving teachers, former teachers, and potential teachers will be interviewed.

The selection of current primary teachers will be based on a stratified random sample. The identification of sample size and the stratifiers will be an outcome of the teacher incentive

meeting in Sana'a. The most straight-forward approach to selection of former teachers is by referral. Each of the current teachers interviewed will be asked to name three or four former teachers.

Descriptive statistics will be used to summarize the information collected from each of the sample sub-groups. Sub-group data will then be compared using the Chi-square test to determine whether the different groups share similar views of: (1) the effectiveness of the current incentives and (2) priorities for change.

**IEES Policy Research Initiative
Teacher Incentives Project**

Inventory of System Characteristics

I. System status

II. Teacher Salaries

Number of Teachers Actively Teaching

Number of Teachers Actively Teaching

Time

- Full time
- Part time
- More than full-time

Time

- Full time
- Part time
- More than full-time

Educational attainment

- Less than primary
- Primary graduate
- Some secondary
- Secondary graduate
- Additional education

Educational attainment

- Less than primary
- Primary graduate
- Some secondary
- Secondary graduate
- Additional education

Teacher Training

- One year of teacher training
- Two years of teacher training
- More than two years of teacher training
- Specialized training

Teacher Training

- One year of teacher training
- Two years of teacher training
- More than two years of teacher training
- Specialized training

Experience

- No experience
- One year experience
- Two years experience
- Three years experience
- Four years experience
- Five years experience
- More than five years experience

Experience

- No experience
- One year experience
- Two years experience
- Three years experience
- Four years experience
- Five years experience
- More than five years experience

Current Assignment

- Grade Level
- Subject Area Specialization
- Region
- Location

Current Assignment

- Grade Level
- Subject Area Specialization
- Region
- Location

Demographic characteristics

- Age
- Gender
- Marital Status
- Ethnicity
- Language
- Home region

Demographic characteristics

- Age
- Gender
- Marital Status
- Ethnicity
- Language
- Home region

III. Opportunity Costs

Number of Teachers Actively Teaching

Time

- Full time
- Part time
- More than full-time

Educational attainment

- Less than primary
- Primary graduate
- Some secondary
- Secondary graduate
- Additional education

Teacher Training

- One year of teacher training
- Two years of teacher training
- More than two years of teacher training
- Specialized training

Experience

- No experience
- One year experience
- Two years experience
- Three years experience
- Four years experience
- Five years experience
- More than five years experience

Current Assignment

- Grade Level
- Subject Area Specialization
- Region
- Location

Demographic characteristics

- Age
- Gender
- Marital Status
- Ethnicity
- Language
- Home region

IV. System Needs

Turover Rate

- National
- Regional
- District

Teacher Training

- Intake
- Curriculum
- Training process
- Graduation
- Initial assignment
- Costs

V. System Regulations

Recruitment procedures

- Recruiting agency
- Job requirements and qualifications
- Application procedures
- Selection procedures

Initial assignment

- Region
- School
- Grade(s)
- Subject area(s)
- Length of initial assignment

Induction procedure

- Assistance in relocating
- Orientation to school
- Orientation to community

Job requirements

- Workload
- Schedule
- Salary
- Holidays and leave
- Supervision

Tenure

- Length of probationary period
- Tenure procedure

Promotion

- Career ladder
- Promotions out of primary schools
- Promotion out of classroom teaching

Transfer

- Frequency
- Region
- Grade(s)
- Subject area(s)
- Length of new assignment

Termination procedure

- Dimissal
- Resignation

2/3

IEES Policy Research Initiative Teacher Incentives Project

Inventory of Incentives

MONETARY INCENTIVES

SALARY

- Salary
- Beginning salary
- Salary increases
- Salary scales
- Salary deductions
- Regularity of payment
- Merit pay

ALLOWANCES

- Materials allowance
- Cost-of-living allowance
- Family allowance
- Hardship allowance
- Training allowances
- Professional development/educational allowance
- Travel allowance

IN-KIND SALARY SUPPLEMENTS

- Free housing
- Subsidized rental
- Free meals
- Subsidized meals
- Plots of land
- Scholarships
- Low-interest loans
- Free books

BONUSES

- Bonus for regular attendance
- Bonus for student achievement
- Grants for school projects

BENEFITS

- Paid leave
- Sick leave
- Health insurance
- Medical assistance
- Pension
- Life insurance

ADDITIONAL EMPLOYMENT

- Additional teaching jobs
- Tutoring jobs
- Proctoring jobs
- Examination grading jobs
- Textbook writing

- Educational projects jobs
- Ministry of Education jobs
- Nonteaching job opportunities

NONMONETARY INCENTIVES

NATIONAL RECOGNITION

- National evaluation
- Awards for teachers
- Political recognition

INSTRUCTIONAL SUPPORT

- Instructional materials
- Supervisory guidance

PROFESSIONAL DEVELOPMENT

- Inservice training
- Distance education
- Professional meetings

COMMUNITY RELATIONSHIP

- Community support
- Status in the community
- Home-school relationship
- Community recognition
- Community compatibility

QUALITY OF LIFE AT SCHOOL LOCATION

- Transportation facilities
- Communication facilities
- Housing
- Food
- Entertainment facilities
- Secondary education facilities
- Medical facilities

SCHOOL CHARACTERISTICS

- Size
- Type
- Sources of funding

SCHOOL ADMINISTRATION

- Compatible values
- Performance appraisal
- Recognition by headmaster
- Access to administrative information
- Participation in school decisionmaking
- Student selection

WORKLOAD

- Teaching load
- Administrative workload
- Extracurricular duties
- Fair distribution of workload
- Schedule flexibility
- Free periods
- Schedule preferences
- Time for lesson preparation

COLLEAGUES

- Positive peer relationships
- Compatible peers
- Sharing of incentives

FACILITIES

- Number of classrooms
- Library facilities
- Teacher's room
- Cafeteria

CLASSROOM: ENVIRONMENTAL QUALITY

- Well-lighted
- Well-ventilated
- Well furnished

CLASSROOM SUPPLIES

- Good blackboard
- Ample supplies (chalk, etc.)
- Good textbooks
- Useful teachers' guides
- Variety of teaching aids

STUDENTS

- Small number of students
- Age range of students
- Types of students
- Promotion procedure
- Low student absenteeism
- Low dropout rate
- Respect from students
- Well disciplined

CURRENT PRIMARY TEACHER INTERVIEW PROTOCOL

Interviewer: _____ Date: _____

Hello, my name is _____. The Ministry of Education is interested in providing better incentives for teaching in order to attract and keep the best teachers in our schools. We would like your help in identifying what you like most about teaching and what factors encourage you to remain or leave teaching. The information you give will be considered confidential and your name will not appear on the interview form.

From Observation: Respondent sex

_____ male
_____ female

1. How many years have you been teaching?

_____ years

(Interviewer: If more than 3 years, stop interview)

2. Do you work in an urban or rural school?

_____ urban
_____ rural

3. How many class periods do you teach a week?

4. Are you considered a full time teacher or a part-time teacher?

5. How many students are typically in your class?

6. Do you have students from more than one grade in your class?

7. How many other teaching posts have you served at? Where were they?

1. _____ urban _____ rural
2. _____ urban _____ rural
3. _____ urban _____ rural
4. _____ urban _____ rural

8. When you decided to become a teacher did you have any other employment opportunities? If so what were they?

9. Looking back what do you think were the most important factors in your decision to become a teacher?

10. Compared to what you expected before you went into teaching, did you find the (READ EACH ITEM) to be better than you expected, about the same as you expected worse than you expected?

Personal satisfaction	__ Better __ Same __ Worse
Textbooks/ instructional materials	__ Better __ Same __ Worse
Status in the community	__ Better __ Same __ Worse
Status in the school	__ Better __ Same __ Worse
Quality of your colleagues	__ Better __ Same __ Worse
Support from the headmaster	__ Better __ Same __ Worse
Support from the community/parents	__ Better __ Same __ Worse
Opportunities for professional development	__ Better __ Same __ Worse
Salary	__ Better __ Same __ Worse
Regularity of payments	__ Better __ Same __ Worse
Allowances	__ Better __ Same __ Worse
Job security	__ Better __ Same __ Worse
Number of students in a class	__ Better __ Same __ Worse
Ability of students	__ Better __ Same __ Worse
Classroom conditions (e.g. light, ventilation, furniture, roof, and walls)	__ Better __ Same __ Worse
Location of school	__ Better __ Same __ Worse

11. Overall, how would you rate your satisfaction as a teacher?

- _____ Extremely satisfied
- _____ Very satisfied
- _____ Satisfied
- _____ Neither satisfied nor dissatisfied
- _____ Not very satisfied
- _____ Very unsatisfied
- _____ Completely dissatisfied

12. Name the two things you find most satisfying about being a member of the teaching profession?

13. Name the two things you find least satisfying about being a member of the teaching profession.

14. What "tools" are important to you in teaching?
What I mean is what "thing" - textbooks, instructional aids - really make a difference in the kind of job you do?

15. What difference does the presence or absence of (READ answer above) make to you as a teacher?

16. Have you ever left teaching?

17. If yes, for how long?

18. Could you tell me why you left and why you returned to teaching?

19. What is the highest grade you completed?

20. Do you have any preservice training. How long was the program?
21. Do you think the training adequately prepared you for teaching?
22. Name two specific ways the training helped you.
23. Name two ways in which you think it could be improved.
24. Have you ever had any inservice training? If so what was the content and how long was the training?

Content

Duration

25. Are you likely to return to teaching in the next five years?

_____ Yes
 _____ No

26. If no, what would it take to get you to return to teaching?

27. I'll now read you some steps that might be taken to encourage good teachers to remain in the teaching profession. For each step, please tell me whether you think it will help a lot, help a little, or not help at all to keep good people in teaching.

(READ EACH STATEMENT)

Providing higher salaries

_____ Help a little _____ Help a lot _____ Not help at all

Providing appropriate allowances for urban, rural, remote teaching:

_____ Help a little _____ Help a lot _____ Not help at all

274

Providing salaries on time

Help a little Help a lot Not help at all

Providing housing

Help a little Help a lot Not help at all

Providing better textbooks and instructional materials

Help a little Help a lot Not help at all

Supplying textbooks/materials on time

Help a little Help a lot Not help at all

Having students who are more motivated to learn

Help a little Help a lot Not help at all

Improving the status of the teacher in the community

Help a little Help a lot Not help at all

Providing a greater role in the management of the school

Help a little Help a lot Not help at all

Reducing discipline problems

Help a little Help a lot Not help at all

Reducing unnecessary rules and regulations that waste teacher's time

Help a little Help a lot Not help at all

Reducing class size

Help a little Help a lot Not help at all

Having more parental involvement with schools

Help a little Help a lot Not help at all

Providing better classroom facilities

Help a little Help a lot Not help at all

Providing more opportunities for inservice training

Help a little Help a lot Not help at all

Providing more opportunities for promotion

Help a little Help a lot Not help at all

Reducing the age range of the students in the classroom

Help a little Help a lot Not help at all

Providing opportunities for teachers to work more collaboratively in the schools

Help a little Help a lot Not help at all

Changing the school schedule and calendar to better meet the needs of the teachers and students

Help a little Help a lot Not help at all

Providing more support from the headmaster

Help a little Help a lot Not help at all

Encouraging greater support from the community and parents

Help a little Help a lot Not help at all

Providing bonuses and allowances

Help a little Help a lot Not help at all

Making only the deserving teachers permanent

___ Help a little ___ Help a lot ___ Not help at all

28. Which three of these do you think are the most important? Name them in order of importance.

29. Do you have other sources of income? If yes, what are they?

30. Do you have any other jobs in addition to teaching? What are they, how much do you get paid, and how many hours do you spend at them a week

<u>Job</u>	<u>Salary</u>	<u>Hours per week</u>
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31. Is there anything else you would like to tell us about your experience as a teacher?

Thank you very much for taking the time to share your experience.

A SUGGESTED PROCEDURE FOR CONDUCTING POLICY RESEARCH IN TEACHER INCENTIVES

I. PREPARE FOR THE TEACHER INCENTIVE STUDY

Identify key policy issues related to teacher incentives

Trace progress of previous research and change efforts on teacher incentives

Obtain organizational charts of agencies involved in making decisions regarding teacher incentives

Prepare a model of policymaking process related to teacher incentives

Identify and interview stakeholders in teacher incentives

Summarize the information

II. CONCEPTUALIZE THE TEACHER INCENTIVE STUDY

Develop a preliminary model of teacher incentives

Formulate specific research questions related to teacher incentives

Select important aspects of teacher incentives

- Identify malleable variables related to teacher incentives

III. CONDUCT THE STUDY

Operationalize teacher incentive variables

Design methodology for the teacher incentive study

- Survey research
- Focused synthesis
- Secondary analysis
- Field experiments
- Qualitative methods
- Case studies
- Cost analyses

Specify the target population for the teacher incentive study

- Identify key groups
- Specify sampling procedures

Prepare instruments for the teacher incentive study

- Use existing instruments
- Adapt existing instruments
- Prepare new instruments, if needed

Collect data on teacher incentives

- Collect existing data
- Collect new data

IV. ANALYZE THE DATA

Code instruments as the results come in

Record results from each instrument

Select appropriate statistical analyses

Analyze the data

Draw conclusions

Present the results in tables and charts

Prepare tentative set of recommendations

V. ANALYZE STUDY RECOMMENDATIONS

Analyze implementation parameters

- Analyze stakeholders in teacher incentives
- Identify stakeholders
- Identify magnitude of support or opposition of each stakeholder to the recommended changes in the teacher incentive system
- Estimate probable support of decisionmakers to the implementation of recommended changes in the teacher incentive system
- Analyze organizational parameters
- Analyze organizational structure for changing the teacher incentive system
- Analyze amount of resources needed for changing the teacher incentive system
- Analyze policy mechanism needed to encourage changes in the teacher incentive system

Predict potential consequences of changing the teacher incentive system

- Predict intended and unintended effects of changes in the teacher incentive system
- Predict possible interactive effects of changes in teacher incentive system and other MOE policies and programs
- Predict possible consequences of not implementing the recommended changes in the teacher incentive system

Estimate probability of implementing the recommended changes

Prepare final set of recommendations for changing the teacher incentive system

VI. PREPARE A FINAL REPORT

Teacher Incentives Survey

Former Primary Teacher Interview Protocol

13. Name the two things you found least satisfying about being a member of the teaching profession.

14. What "tools" were important to you in teaching? What I mean is what "thing" - textbooks, instructional aids - really made a difference in the kind of job you could do?

15. What difference did the presence or absence of (READ answer above) make to you as a teacher?

16. Why did you leave teaching?

17. What is the highest grade you completed?

18. Did you have any preservice training? yes no
How long was the program?

19. Do you think the training adequately prepared you for teaching? yes no

20. Name two specific ways the training helped you.

1.

2.

21. Name two ways in which you think it could be improved.

1.

2.

22. When you were a primary teacher, did you ever have any inservice training? yes no
If so what was the content and how long was the training? Content Duration

23. Are you likely to return to teaching in the next five years? yes no

24. If no, what would it take to get you to return to teaching?

25. I'll now read you some steps that might be taken to encourage good teachers to remain in the teaching profession. For each step, please tell me whether you think it will help a lot, help a little, or not help at all to keep good people in teaching.
(READ EACH STATEMENT)

Providing higher salaries	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing appropriate allowances for urban, rural, remote teaching	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Paying salaries on time	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing housing	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing better textbooks and instructional materials	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Supplying textbooks/materials on time	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Having students who are more motivated to learn	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Improving the status of the teacher in the community	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing a greater role in the management of the school	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing discipline problems	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing unnecessary rules and regulations that waste teacher's time	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing class size	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Having more parental involvement with schools	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing better classroom facilities	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing more opportunities for inservice training	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing more opportunities for promotion	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Reducing the age range of the students in the classroom	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing opportunities for teachers to work more collaboratively in the schools	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all

Changing the school schedule and calendar to better meet the needs of the teachers and students	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing more support from the headmaster	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Encouraging greater support from the community and parents	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Providing bonuses and allowances	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all
Making only the deserving teachers permanent	<input type="checkbox"/> help a little	<input type="checkbox"/> help a lot	<input type="checkbox"/> not help at all

26. Which *three* of these do you think are the most important? Name them in order of importance.

1.

2.

3.

27. When you were a teacher did you have other sources of income?
If yes, what were they?

yes no

28. Did you have other jobs while you worked as a teacher?
What were they, how much did you get paid, and how many hours did you spend at them a week

yes no

<u>Job</u>	<u>Salary</u>	<u>Hours per week</u>
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29. Are you currently employed?
If yes, what is your current occupation and salary and allowances?
(NOTE: if a primary teacher has become a secondary teacher this should be considered a new occupation)

yes no

30. Did you need any additional training for your new job?
If so what type of training did you receive?

yes no

257

31.. We would like you to rate some of the aspects of your present job compared to teaching. Is the (READ EACH ITEM) better in your present job than it was in primary teaching.

Salary	<input type="checkbox"/> yes	<input type="checkbox"/> no
Allowances	<input type="checkbox"/> yes	<input type="checkbox"/> no
Personal satisfaction	<input type="checkbox"/> yes	<input type="checkbox"/> no
Materials and supplies you have to work with	<input type="checkbox"/> yes	<input type="checkbox"/> no
Status in the community	<input type="checkbox"/> yes	<input type="checkbox"/> no
Quality of the colleagues you work with	<input type="checkbox"/> yes	<input type="checkbox"/> no
Job security	<input type="checkbox"/> yes	<input type="checkbox"/> no
Opportunities for secondary employment	<input type="checkbox"/> yes	<input type="checkbox"/> no
Control of your own work	<input type="checkbox"/> yes	<input type="checkbox"/> no

32. All in all, how satisfied you are with your present job? yes no

35. Since you left teaching, how many different jobs did you have?

36. Is there anything else you would like to tell us about your experience as a teacher?

Thank you very much for taking the time to share your experience.

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APPENDIX VIII

Policy Research Initiative Materials

Concepts in Decentralization in Education

CONCEPTS IN DECENTRALIZATION IN EDUCATION

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July 1986

there is no aspect of educational quality which is immune to impact from decentralization. Whether any educational benefits are really foreseeable depends on the readiness of local school authorities and their communities to respond to structural change with their own initiatives. They may emphasize enrollment expansion, higher standards of student achievement or other nationally recognized goals. Predicting the precise direction of educational benefits depends on community resources, technical and financial, as well as on the model of implementation of decentralization pursued. The prevailing models are traceable to those operative well developed decentralized systems already functioning. We, therefore, need to look more closely for the best known model; that of educational decentralization in the U.S.

III. Modes of Decentralization

The American model of decentralization heavily influences and, in some ways, inspires recent efforts to decentralize education in the developing world. Yet, it must obviously be sifted from its specific cultural, economic and sociopolitical context in order to be usefully adapted to less developed systems. Productive, effective (if not efficient) and apparently quite functional for its highly diverse multi ethnic and racial socio-economic groups, the American model seems to provide useful lessons for even the most disadvantaged and heterogeneous countries. Encouraged by financial incentives from Americans and international

community input.

The idea that parental participation and pressure will inspire local educational administrators seems at first most relevant for well developed societies where parents have a strong sense of "political efficacy." Research on American school quality, for example, has shown that the presence of middle and upper class parents is a crucial correlate of school quality and student achievement. In large part, the parents' influence results from the educator's shared interest and background with them. The smaller the school, the greater responsiveness of educators to the communal environment is likely to be.¹⁵ Similarly, the more clearly school authority is tailored to local communities the greater the sense of responsibility to the community educators are likely to manifest.

The specifically educational benefits of the political concerns of decentralization, like the benefits of the administrative concerns, are perhaps too numerous to name. A political reorientation complemented by greater administrative efficiency is expected to generate new, more perceptible educational goals along with more realistic methods of attaining them. For this reason, the educational goals of decentralization are best examined in the context of implementation options.

More important, decentralization is intended to leave limited new goals up to the diverse communities while drawing directly from national goals to guide educational progress. Ideally,

The third political aspect of decentralization is particularly important in countries and regions where public education exist side by side with diverse private and community schools. Where demand for schooling has long outstripped supply, proprietary schools and marginal community schools have sometimes detracted from the most efficient use of parental and private funding. At other times, private and religious schools have provided the best, and occasionally the only, schooling available in the area. In the best and worst cases, however, there is little coordination between national policy and private schools. As a consequence, balanced planning for school development, teacher training and nutrition supplements, among other things, often suffers. Where policy^{and}/planning are more clearly localized coordination between local administrators and private sources of educational services should be facilitated.

National certification examinations help to provide some uniformity between the private and public sectors but only on the "output" side in terms of student performances. The character and quality of school "input" is thereby judged, only indirectly. More important, such standards generally have little impact when schooling is scarce because they appear too arbitrary and indifferent to local needs. There is little local pressure to satisfy these national standards. When administrators are in a position to survey schools and teaching in process, as decentralization implies, realistic local standards, or at least shared expectations, can be developed in response to parent and

When schooling is private (and subsidized), parents are more likely to feel efficacious in the system. On the national level, clusters of urban school systems are likely to exercise exceptionally strong influence over government spending given the greater access their proximity and resourcefulness should allow them. Particularly, in those regions where little or no schooling exists it is politically easier and economically more efficient to continue directing spending where school support groups are already organized.

In this regard, researchers have found a direct relationship between educational expenditure distribution in national public systems and the degree of economic modernization of the communities served. For example, Alain Mingat and Jee-Pang Tan found a ratio between white-collar workers and farmers in Africa of 5.2 to 1 for public school appropriations. They conclude:

In general, the share received by farmers is much smaller than their representation in the population;... Manual workers and traders as a group receive a share roughly comparable to their representation in the population. It is clear, however, that the white-collar group is the most successful in appropriating public education resources for themselves.¹⁴

Other analysts might well disagree with the particular designation of shared educational values, but most would agree that significant ones exist. Beyond the cultural questions there remain substantial problems with the unequal distribution, of educational skills, technology and resources which are inextricably tied to political structures. For example, models of educational finance derived from some federalized systems including the U.S. and Brazil suggest that revenues from local sources must be supplemented by national revenues in order to promote basic kinds of equity in resource distribution.¹³ Without some central financing the economic consequences could well be politically disruptive at local and national levels.

The second political concern of decentralization is related to the first in that the unequal distribution of wealth and skills allows for disproportionate control of educational facilities by national and local elites. At the local levels one would expect the better educated and more resourceful to have a great deal of influence over education whether it is centralized or decentralized. In centralized systems, however, the lines of communication are so complex and the center of decision-making so remote that rural non-elites can have virtually no access to authority. When decisions are made within the community, on the other hand, uneducated parents are likely to be less intimidated by the structure of authority in education.



religious and regional differences often require special educational approaches to achieve shared national goals. For example, public schools are frequently staffed by religious organizations in developing countries with varying educational orientations and resources from region to region. These and other private voluntary organizations provide schooling in some regions and not others. Government policy should therefore be sufficiently flexible to accommodate these differences. At the same time, common threads can be strengthened through national subsidies. Accordingly, political scientist Ali Mazrui maintains:

The educational problems of plural societies may be strikingly similar regardless of whether the pluralism derives from racial, religious, or ethnocultural differentiation... there are at least three politically significant values which can be inculcated in an educational system and retain relevance regardless of the nature of differentiation in the plural society, and indeed regardless of the regime in power. We might call these values "The Three T's of Training in Nationhood." The T's I have in mind are first Tolerance; second, Toil; and third, Teamwork.¹²

3. Increase popular commitment to the educational system by giving the public a concrete stake in it and by making the responsibility of bureaucrats to the public more direct.

As is characteristic of intentions behind most major reforms in public education, these goals reflect a desire to limit the potentially disruptive effects of political divisions on the administrative structures in education. Educational decentralization is, for the most part, encompassed by larger developmental processes aimed at stabilizing national institutions, and formalizing patterns of political influence over policy.¹⁰ In fact, decentralization policies are normally most effective when implemented concurrently across several areas of public service or when a strong set of local institutions have been resistant to central authority in several policy areas.¹¹ In the former case reform in education is reinforced by strong local authorities and/or by private agencies. In the latter case, it accommodates local efforts to protect their special interests and promote cultural-political self-expression.

First, politically oriented decentralization may well be different from political decentralization per se in that the latter seeks to promote independent and segmented decision-making while the former promotes consensual goals while allowing for the articulation of local differences in subsidiary goals. Ethnic,

287

Political goals blend readily into the administrative ones in the sense that both conform to relatively noncontroversial standards for national development. In fact, the goals are political largely because policy makers are seeking to minimize the effect on educational authority of the fallout from persistent political conflicts in the larger society. Second, they are attempting to recognize the prevailing distribution of power in the society to which the narrower and more centralized education administration may not yet have adapted. As James Guthrie and Rodney Reed observe in their study of American educational administration, educators generally seek to depoliticize their domain. "Indeed, much of the ethos of professional education is filled with the need to sustain a separation between political activity and public schooling."⁹ Educational reforms are typically linked to efforts to depoliticize administration judging from the nineteenth period of American educational expansion.

Interpreting Rondonelli's list of decentralization goals, the political ones may be summarized as follows:

1. Provide for a balanced representation of ethnic, religious and geographical diversity in educational decision-making;
2. Limit the control of resources and administrative personnel by national and local elites;

sistent verification of surveys and no well defined first-hand collection of data. With decentralization local administrators should have the brief training and incentive to pursue adequate data collection.

In addition to the above, the administratively oriented goals of decentralization are implied in the more political as well as the more educational goals to be discussed. Moreover, the significance and realism of the administrative reasoning can only be evaluated in the context of the political and educational factors.

the government's development strategy a powerful community mobilizing force..."⁸ Thus, government can draw greater community support and incorporate community initiative in a national program through decentralization. Local innovation could therefore lead to enduring diversity in the system and/or to the low-risk national promulgation of local successes.

Fifth, given the absence of highly trained managerial personnel and educational professionals in developing countries, it is important to maximize the effectiveness of those available. For one, civil servants are already highly paid compared to their counterparts out of government in developing countries. Second, there is a greater risk of corruption and patronage to the extent their services are not subject to competitive criticisms. Perhaps most important, their ability to use their skills is severely limited by the lack of coordination with and availability of lower level semi-skilled civil servants. For example, the absence of aggregate data management and collection analysis in many countries, is only partially tied to computer services and technical skills. Most often aggregate data on education cannot be well developed and maintained because there is no con-

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to look up to the hierarchy rather than to service users... bureaucrats depend on their superiors, not users, for job security and promotion."⁷ Particularly when parents and community leaders are uneducated and inexperienced in making demands on public officials, civil servants have little incentive to adjust their practices to local interests.

Fourth, the costs and technical constraints of educational experimentation pursued on a nationwide basis are likely to be prohibitive. In addition, the political professional risks to would-be innovators in education are greatest for those who have already demonstrated enough administrative competence to rise in the civil service hierarchy. Local administrators and private educators, on the other hand, are less conspicuous and less vulnerable in experimentation. The consequences of the failures are not only smaller but also more easily minimized through recourse to traditional educational practices. For example, the Harambee movement in Kenya provided responses to locally felt needs by creating community schools. While the record of student performance from these schools is not very good, compared to regular schools they have been subsidized by government as a community initiated service. At the same time, they need not impede the provision of more traditional public schooling. "The nation of Harambee evolved firstly as an un-systematic and ad hoc response to the problems of rural poverty in Kenya [which were later] formally adopted as a component within

this behavior as "system rigidity." Illustrating the problem from the Venezuelan case, he provides the following description:

"All curricular and administrative processes were standardized for each school in every geographical area of the country. Urban or rural, rich or poor, single or mountainous, regional differences and needs were not taken into account. A complex body of rules inhibited local initiatives toward change because change was only permitted to come from the top. However, change from the top came very slowly. For example, the same standardized curriculum was used throughout Venezuela from 1944 to 1969.⁶

Third, bureaucrats, like most people in positions of accountability, seek to minimize their individual risks by maximizing their control over the resources for which they may be held accountable. As such, there is a tendency to concentrate resources and authority over them at the center of administration where conformity with bureaucratic procedures can be most easily assured. In centralized systems "civil servants tend

greater the educational needs, the higher the demand for schooling relative to its supply and the more restrictive the threshold resources needed. The simple ability to make effective requests of a central office for books or nutritional support, among other things, is inhibited by the complexity of any application process meant to cover typical demands. In a country as small and homogeneous as Haiti, for example, rural school directors have generally lacked the training and communication resources to effectively compete with urban school directors in petitioning public officials and agencies.⁵ In larger, more heterogeneous countries the bureaucratic obstacles are proportionally more foreboding.

Second, the administrative capacity to assess national needs and to differentiate local needs is directly related to the abilities of local educators to communicate their needs in a regular and comprehensive basis. In other words, central offices are not likely to overcome on their own the inability of local educators to articulate their interests. On the contrary, they are more likely to fall back on any established system of rules as a source of legitimacy in the face of overwhelming but ill-defined demand. Looking at Venezuela as it embarked on a series of decentralization programs, E. Mark Hanson explains

1. Reduce bureaucratic procedures and red tape;
2. Increase awareness of local needs at national level;
3. Inhibit the tendency of high officials to retain and/or concentrate resources at the center and thus distribute resources inefficiently;
4. Increase experimentation with private education, sources of support and funding, as well as with local innovation;
5. Make efficient use of top managerial and professional personnel and relieve them of cumbersome routine tasks as well as separate them from direct individual financial responsibilities.

Complexity of bureaucratic procedures and the depth of red tape is perhaps greater in developed systems than in developing ones but the ability of teachers, local administrators and parents to deal with those problems is vastly smaller. The

goals as well as compensate for the older concern with political dimension less tied to education.

Still, because all public administration can be politically sensitive, early concerns with political stability can not be completely ignored in the future. At the same time, administrative planning needs to be carefully evaluated in terms of educational benefits. Accordingly, the expectations of decentralization may be viewed as continuum from the more politically-specific to the more educationally-specific. Given the mixed motives behind goals most of the efforts at decentralization include elements of both. Near the center of the continuum, the majority of the goals may be treated as primarily "administrative" in the sense that they are adaptable to goals at either end of the continuum. A brief look at the advantages of decentralization as summarized by Dennis Rondinelli and the weaknesses of centralization as noted by Thomson and Wunsch helps to illustrate the continuum.⁴ Looking first at the administrative dimension, the goals of decentralization may be summarized as follows:

experiments.² Similarly, James Thomson and James Wunsch in a concept paper for USAID conclude that there are at least ten weaknesses of centralization which complement the positive expectations of decentralization found throughout the literature.³

Almost logically, the recognition that over-centralization impedes development should give rise to decentralization policies. The logic, however, is limited by the inability of structural analysis of administrative change to separate the deficiencies of centralized decision-making from the largely antiquated post-colonial practices surrounding them.

For example, an early need to reinforce political and administrative leadership at the end of colonialism, led to heavy investment of national funds in centralized higher education. The newer and expanding demand for the primary education was from rural areas, therefore, under-valued for reasons beyond centralization. Similarly, a preoccupation with national unity by the leaders of newly independent nations in the 1960s often militated against the delegation of authority for those functions, where competing power bases did not require it. Centralized education is thus the insecurities of newly formed nation states. Decentralization, on the other hand, is expected both to reinforce newer educational

2/21

Through regularizing, stabilizing, and reforming the watchful guardianship of community and parents, decentralization recognizes and gives credence to their special authority on the inside as well as on the outside of the educational system. Still, between this long-range goal and policy initiation, stand the very complex procedures and goals which demand equally careful and creative attention in decentralization planning.

Purposes of Decentralization

While no one expects educational decentralization to compensate for deficiencies like a lack of financial resources, the inaccessibility of pedagogical materials or malnutrition among children, the potential benefits attributed to decentralization have been enormous. It is, for example, often expected to facilitate creative school financing practices, promote a well-balanced distribution of materials and encourage private support for the most disadvantaged children. In their collection of research on Decentralization and Development Shabbir Cheema and Dennis Rondinelli identify fourteen arguments for decentralizing education. The range of motives behind these arguments include a sociopolitical desire to equitably represent geographic and/or ethnic heterogeneity, an administrative concern with "diseconomies" of large scale services, and a pedagogical interest in innovative

Beyond these purposes, there are a host of more formal educational benefits expected to result from decentralization, as will be discussed. Yet, these other purposes--for example, a belief in the value of greater independence for local school directors--ultimately revolve around the special attributes policy makers hope to extract from what is called here the expectant or involved community.

As one analyst of development concludes:

"The deep interest of people in their schools, ...and their active concern for the educational opportunity of their children combined with forces which support the enlistment of the people's participation in their government and its development programs to make education one of the major subjects of local self-government and one of the chief aspects of the process of political development.¹

Perhaps more than other policy, the justification for decentralization and its value to educational administration derives from the binding relationships of students to those for whom they embody much of the future. Inevitably the political success of decentralization depends on its capacity to legitimize the community's role and regularize its contributions.

209

there is generally no way of drawing from this and similar images of the school environment clear lessons for education policy. Yet, policy makers broadly recognize that any educational progress must take into account the behavior and interactive effects of the expectant community just outside the school.

What should be done and what can be done to respond to the community factors which everyone recognizes but no one can place in a systematic behavioral analysis of education? Parental participation has long been recognized an important contributing factor in the impact on children of educational development programs. As direct consumers or recipients, however, parents rarely show up in education planning and certainly not to the degree their presence is seen and felt around the new schoolhouses in rural, developing areas.

Perhaps more than any other major national initiative in educational administration, the increasing popular efforts to decentralize education in the developing world is a response to the expectant local community around schools. Among other things, it is an attempt to draw from the community the untapped resources which are thought to have only needed direction to provide special benefits to the schools. Secondly, decentralization has emerged as a means of invigorating those just outside the school walls to compensate for the inability of centralized administrators to keep in mind the details and diversity of local school environments.

CONCEPTS IN DECENTRALIZATION IN EDUCATION

From the rather insulated vantage point of a national office for the administration of education it is difficult to keep in mind the complex mosaic of images and social indexes which characterize disadvantaged schoolhouses throughout the developing world. For the vast majority of these schools much of the data and images may be numbingly repetitive. Yet, for large rural and urban subsystems of education in any country essential components of the data composing this complex mosaic vary substantially from one subsystem to another. The resources, type of instruction and pedagogical materials, or lack of them often can be adequately recalled because they belong to the central set of criteria for educational development on which national administrators focus. What may slip from view, however, are the unmeasured attitudes, sentiments and aspirations of local people which give these schools much of their social meaning and identity. There is, for example, no classification for the common scenes in many rural areas of parents sitting outside of a small open-sided schoolhouse with one teacher and about forty children waiting and watching as if they expected to see some rewards of schooling surface almost immediately. They wait expectantly as if they had no real idea of what education might bring to their lives. Although such scenes may be atypical after the novelty of a new school has worn off, they are still quite common in the developing educational system today. When outside observers, education ministry officials and foreign donors have come and gone,

donor agencies, as well as by their own needs to correct flawed centralized systems, Latin American, Asian and African countries have turned increasingly in the last decade to administrative decentralization as a solution to the immobility and ineffectiveness of their educational systems. Logically, no country has attempted to replicate the American model but that logic has also allowed some of the lessons of the American experience to be overlooked. In particular, the historical process through which decentralized education in the U.S. evolved cannot be irrelevant to the current structure of the system.

Without engaging in a rather unpromising reanalysis of national histories, one can easily recognize two characteristics of American decentralization that seem to be widespread, if not universal, among advanced societies countries and largely missing from developing ones. First, decentralization in education as well as in the political structure at large has rarely been as much a goal in the U.S. as a fait accompli. For virtually all of American history educators and policy makers rarely sought to extend the independence of the private and local sectors but simply to preserve the independence they had always had. In contrast, decentralization in developing societies involves the active promulgation of policy at the national levels of politics and administration. Policy once promulgated must be implemented from the national center at the local levels. Even where there are substantial decentralized local units of

authority, the expansion of local responsibilities requires a coherent nationally centered affirmation of policy. Effectively, nation-wide decentralization can be assured when there is a national force behind the effort and national rules of responsibility for implementing decentralization.¹⁶ The process in developing countries therefore should be expected to encounter the obstacles of its own historical development in education, however limited, that run in the opposite direction. Ironically, the greater their past administrative success, the greater obstacles of decentralization.

In spite of its basically localized character and history, American education has been tending toward greater centralization for the last two decades through the steady expansion of federal financial aid to higher education and greater financial and regulatory roles of state governments in local elementary and secondary schooling.¹⁷ This trend has been confronted by a recent political campaign seeking to reduce the role of the federal government in education. The current administration has consistently attributed the decline in student achievement and the rise in costs for schooling to a gradual loss of local parental control over schooling. For quite different political reasons, more liberal political groups argued for decentralization of education under the rubric of "community control" in the sixties in an effort to diversify large metropolitan school systems. These groups were responding to broader political movements for

greater equity across racial-ethnic and economic lines by attempting to make schools more adaptable to the special and heterogeneous character of their communities. Thus, the public pressure for greater decentralization has been launched in recent years on the basis of claims for greater efficiency and effectiveness at one time and greater social equity at other times.

Yet, for most of their history both political tendencies have been legislatively and administratively supported the established distribution of authority. In fact, similar groups have successfully made similar claims in precisely the inverse direction, to the effect that greater centralization promotes educational efficiency and social equity. Education pressure group leaders in several states have viewed the states' broader revenue base as a more equitable response to the increasing costs school finance, according to James Guthrie and Rodney Reed in their study of educational administration.¹⁸ As a result, once locally financed public schooling is now over eighty percent subsidized by the state in California as it is similarly done by most other states. Like centralization in general, "state involvement is self-reinforcing," according to Guthrie and Reed. An understandable response to public pressure, they argue, the political agitation over educational finance increases the involvement of politicians and in "in turn, results in a dilution of autonomy for local school officials."¹⁹

Around the time the financing issue was prominent strong public concern over the quality of education began to surface. As a part of a larger effort to provide for greater "efficiency"

in schooling, statewide testing of students and teachers and uniform graduation standards were advocated in the 1970s. While this concern with efficiency may not have necessitated movement toward centralized state level decision-making that was the most easily recognized approach.²⁰ This kind of easy recourse to centralization under pressure for efficiency is not likely to disappear.

What the recent American experiences suggest for their adaptability to a model of decentralization to other countries should not be excluded from decentralization planning. In particular, the structure of administration of education is consistently subjected to diverse political and social trends which both stabilize and destabilize local authority. First, educational decentralization even when historically rooted is subject to centralizing tendencies. Second, decentralization is sustained by diverse pressure which may be unreliable and which usually do not emerge from a focus on education per se. Of course, the experiences of other federal decentralized educational systems, such as that of Brazil, show somewhat different experiences but on these two points the American model seems to have universal relevance.²¹ Specifically, decentralization policies are successful when they emerge rather naturally over a time, from the societal context. Second, there is a dynamic politically-motivated tension between centralization and decentralization that requires reinforcement of the latter. In other words, decentralization has worked primarily where the administration has been buttressed by policy choices reaching beyond education to the political en-

vironment. The policy cannot be simply implemented once and for all and then allowed to evolve because such an evolution would tend toward centralization.

III Categories of Decentralization

Decentralization is both a process and a structure. It is the process through which national or state governments delegate or relinquish authority to quasi-independent local governments and/or agencies. It is also, as the American example illustrates, the structure of established intergovernmental and interagency relationships which formalizes shared authority into a single framework of governmental services and functions. While there are several models of the structure, there are no real models of the process by which developing countries can be assured^{of} reaching a stable decentralized structure. As in most areas of public policy, however, experience provides the most useful lessons. In this case, limited past experience suggests as much about the problems of implementing the decentralization process as about its final structure. The desired structure can take on several forms and work effectively while the process of change needs to be carefully tailored to the substantive policy context and the specific services or tasks to be transferred.

The structural alternatives of decentralization vary along a sort of continuum in the distribution of authority. At one end is the comprehensive separation of power and authority between levels of government such that central government or agencies can

only supercede the decision of local ones indirectly. This type may be called "political decentralization" even when it concerns an administrative function, like education as long as the pattern of authority is shared among most other areas of policy. At the other end, is what may be called "administrative decentralization" in the sense that a clear hierarchical relationship is maintained circumscribing the breath of decision-making permissible at the lower level by the upper or central authorities.²² For education the political-administrative distinction is only relevant as a background to program differences but not a basis for explaining them. For the most part, the approaches to education are heavily clustered at the administrative end of the continuum.

More useful categories are provided by Dennis Rondinelli and colleagues who characterize decentralization in terms of "deconcentration" "delegation," "devaluation" and the "transfer of functions."²³ Except for the category of transferring functions, these categories conform to the continuum of distributing political and administrative authority where devolution is largely political and deconcentration is largely administrative. Delegation falls somewhere in between, and except for its primary focus on governmental agencies, is similar to the transfer of functions which focuses on private agencies.

Deconcentration

"Deconcentration involves the redistribution of administrative responsibilities only within the central government." For example, there may be a "shifting of workload to field staffs in rural areas." The rural officers may remain wholly within the central administration or they may be "integrated" into local governmental administration.²⁴ Deconcentration primarily addresses the administrative problems of overly centralized systems by displacing the operational workload of the central ministry of education to local units. Most of all, it can provide some relief from excessive red tape and inadequate communications for local school administrators by giving them an intermediary public official with whom they can communicate directly. It also allows the ministry officials to collect data and evaluate it more efficiently through a broad distribution of personnel responsible to it. Implied here, is the problem of greater cost associated with deconcentration. The need for trained personnel and multiple local offices inevitably suggests, at least for the short-term, increases in the budgets of educational ministries.

Perhaps the most significant limit of deconcentration is reflected in the control of revenues for education. As in the more centralized systems, revenues for education must be collected on a national basis and distributed on a basis commensurate with support. That is to say, separate local tax bases, such as the American local property tax system, can not be effectively used to buttress a uniformly administered national education system.

Although private funds and schooling can accompany deconcentration, this alternative is no more likely than under centralization. Local administrators can, however, facilitate a differentiated school finance system tailored to varying local needs.²⁵ Still, their role would only serve to make more efficient the execution of a centrally developed "equity" policy designed to offset regional or local economic disadvantage.

Deconcentration may have a small effect on the political problems of centralization by facilitating ethnic and regional diversity in personnel composition. Since local officials are tied to their administrative localities, they can more easily be selected to fit the ethnic, religious and other special characteristics of the area.

In effect, the major value of deconcentrating centralized systems comes in the process itself. Long dormant central administrations can be streamlined through the process of evaluation necessary in the redistribution of operations to local offices. Although not necessary, this process encourages the reevaluation of personnel and the exploration of new management techniques. Second, deconcentrated systems are better suited for the transition to more substantial decentralization of authority. Deconcentration can thus serve as an intermediary step to the delegation or devolution of authority.

Delegation

The process of dispersing the functions and responsibility of public education to relatively inexperienced, undertraining and underfinancial local agencies can only inspire confidence when undertaken gradually with control and supervision. Delegation provides mechanisms for retaining the confidence of central administrators in the management of education, while permitting a more substantial distribution of authority than deconcentration.

Delegation involves the transfer of policy-making authority for specific educational functions and/or schools from the national to local educational agencies. The exercise of local authority should be limited by broad national educational goals and parameters of performance. For example, the qualifications of teachers and standards of school and student performance evaluations might be specified at the local level but only within a range prescribed by the central administration. According to Rondinelli and Cheema "delegation implies the transfer or creation of broad authority to plan and implement decisions concerning specific activities-- or a variety of activities within specific spatial boundaries-- to an organization that is technically and administratively capable of carrying them out without direct supervision by a higher administrative unit."²⁶

In order to function without supervision on local levels where there are national educational standards of achievement for students, the supply of teachers, resources and schools must be

fairly widely distributed across the nation. The possibility of access to limited secondary schooling, for example, where primary schooling is spotty and highly uneven, would be effectively denied students from disadvantaged regions with new independent primary schools. In turn, regional disadvantages could be aggravated by the lack of schooling coordination and uniformity in school regulations. Similarly, the management of financial resources by newer local schools is likely to be inefficient without supervision and eventually make them more dependent on national funding. In this regard, Jones Akinpelu in a study on African rural education concludes:

The philosophy of localized self-development ...makes sense only if there are financial and organizational resources to translate potential resources into real programmes. Isolated programmes became inefficient when there is a lack of coordination and organization, and where there is inadequate qualified personnel to handle them. 27

National inspection and advisory teams assigned to local areas may provide sufficient supervision. The authority of these teams over local administrators may be limited to issues of technical effectiveness and managerial efficiency or as well to broad policy on student attainment standards without seriously compromising local independence. The District Extension Teams in Botswana may provide

a useful example of this kind of relationship to the extent that they simply "coordinate" local educational programs.²⁸

On the other hand, many developing countries where delegation is a viable option depend more heavily on private schooling. In these cases supervision encounters political problems. The limits of supervision are often drawn very sharply as a result of the heterogeneity of private schooling and the religious character of much of it. Perhaps for these reasons, Rondinelli and Cheema treat the "transfer of functions to non-governmental institutions separately from delegation. To describe the former they say: "governments may transfer to 'parallel organizations'... the right to license, regulate, or supervise their members in performing functions that were previously controlled by the government."²⁹

In addition to the public/private distinction, the transfer of functions, as they describe it, may well involve non-localized private organizations in the provision of educational services. For example, private donor associations have long been involved in the provision of teaching materials, school lunches, the management of teacher retraining programs and related activities on a nationwide basis. These functions can easily be incorporated into national policy goals while remaining under the direct authority of private donors through the delegation approach. In contrast to the reliance on such donors under a centralized system, the associations and the government independently set policy. Authority is subsequently delegated on the basis shared policy orientations. This process may be crucial in heterogeneous environments

where the religious or ethnic interests of donors sometimes run counter to national goals. Thus, delegation protests national government policy from some distortions of private implementation while the private donors to pursue their special interests through separate programs.

Private groups may also provide nearly all schooling in local areas particularly in the less-developed rural areas remote from government schools. These schools are most likely too religious as in the case of Haiti or communal as in much of Africa. In any case, effective delegation would indicate some control of quality in exchange for the subsidizing of school costs by government.

Generally, the transfer of functions to the private sector, as opposed to their hierarchical delegation within the public sector, is justified on the basis of greater efficiency and expediency. Expediency is a criterion in that the private groups selected should already have a resource base on which to expand. This does not necessarily mean that their functions would ever be usurped by government. The long-range concern with efficiency in a developing system suggests that government focus its expanding capabilities on responding to the largely unmet demand for education. For example, the attainment of universal literacy, a reasonable primary goal, is at least a decade off in many developing countries. Beyond that the selective development of skilled labor to attract new industry may well consume new public initiatives in educational development for many years to come.

The major differences between the public and private sectors under delegation involves the specificity of public responsibility. Both public and private groups can be delegated educational responsibility but local government officials are more likely to share national administrators' orientations and backgrounds. Delegation, therefore, requires more precise definition of responsibilities when it involves private groups.³⁰ At the same time, the attempt to expand without the private sector would imply greater inefficiency where public resources and personnel are already strained and limited. For example, the personnel salary costs of the public sector in the least developed countries already greatly exceed those of the private sector and still the number of trained personnel is not very high.³¹ Given these constraints, the difference for national educational system goals, as opposed to efficiency concerns, in delegating authority to the public agencies or private ones is not likely to be significant.

Devolution

Well organized educational systems are normally found in well organized communities--a reasonable relationship which educational decentralization sometimes seeks to circumvent. In its most comprehensive form decentralization assigns to local governments authority over their schools with the expectation that they can run them effectively and efficiently than the central government. In advanced societies this assumption is partly based on the strength of local governments in other public functions while in

less developed ones /^{the} assumption is grounded in their potential. In the latter case, there must still be a model of comprehensive capabilities for governance at the local level from which education can draw. Accordingly, "devolution" implies comprehensive inter-related local decision-making. Rondinelli and Cheema define devolution as the policy of attempting "to create or strengthen independent levels or units of government through the devolution of functions and authority... the central government relinquishes certain functions or creates new units of government that are outside its direct control."³² They add that "reciprocal" rather than "hierarchical" intergovernmental relations are maintained. Separate sources of educational funding by localities should also be expected though it may not be essential.

Planning for devolution, like individual investment planning, for example, works best when there is a background of related experiences on which to draw. Most of the developing countries which have been pursuing decentralization have lacked the local governmental infrastructure needed for devolution. Ideally, broad responsibility for education should devolve to local governments or local selected educational administrators but this can only be a realistic option where there is local experience, skill and stability in governance. In federal systems, as in the U.S., there is a basis for comprehensive local authority of which the legacy of colonialism and/or national economic dependence have deprived most developing unitary political systems. Still, where there are

215

cumulative divisions of ethnicity or religion along side geographic separation, gradual devolution may be worthwhile. For example, ethnic and geographical segmentation in Indonesia may make the development of local governance a long term goal. The process, however, should most likely begin through deconcentration or delegation because it requires the initiative and creative force of a strong national government. Perhaps most important, it requires substantial expenditures to reinforce local government administration.

To function reciprocally with central government, local governments must have parallel resources. They would need skilled administrative personnel in and outside education. Related public service, such as building supervision, employment regulation, nutrition programs, and health care, would ultimately affect education. Teacher and student certification must be locally managed if real reciprocity with central government is to be maintained. Further local governments must have significant financial independence if they are to have the capability of generating specialized educational programs not subject to central approval. Since the most crucial problems and prospects of devolution are tied to its financing, it can be examined further in the context of alternatives for financing in decentralization.

IV. Financial Aspects of Decentralization .

The farther a system moves along the continuum from decentralization to devolution the greater is the need for separate local financial resources in education in order to sustain the relative independence of governmental levels.³³ Similarly, the degree to which established resource bases exist is positively linked to the feasibility and extent of a decentralization planning. The delegation of responsibilities to the private sector seems to do very little to deter this relationship except in the direction of reinforcing centralized financial authority.

While local financial independence may be out of the question (and undesirable), even the least developed countries have some untapped sources of revenue for education. First, at the school district level, parents, and community groups and private donors are often able to provide labor and building materials for school construction. These are normally direct services which are difficult to predict or to translate into direct budgetary plans. Still, the greater proximity and accessibility of local administration makes parental involvement in such areas as school construction, transportation of supplies and nutrition more manageable.

More systematic revenue raising programs have been pursued with as yet uncertain lessons for developing countries. The most obvious possibility is an adaptation of the American local property tax model. Because strong local government and property regulation are needed to make property taxing work, it is unrealistic

321

for the less developed countries. In addition the system would greatly exaggerate communal and regional inequalities. Alternatively, payroll taxes, national lotteries and matching fund grants to localities have been suggested as sources of revenue but these, of course, involve centralized funding.³⁴ Yet, because allocations would be regularized and adapted to local initiative, more independence could result.

The matching grant approach seems to be the most viable in that other approaches are already used for other public services, e.g. lotteries and social welfare, or they are not tailored to education. Accordingly, Donald Winkler examines grant approaches used in Brazil and the U.S. in an effort to gauge their broader utility. The primary choices are categorical grants, which promote specific educational goals and programs, and block grants which subsidize broad local initiatives.³⁵

Categorical grant programs would work best with deconcentration or delegation types of decentralization. Categorical grants imply a basic national uniformity and consensus on educational policy and practice. Central government must select either specific projects, categories of students or other inputs for which localities may use national assistance. Local educational agencies or schools would in turn apply for these grants at their discretion. Categorical grants have been used effectively in the U.S. and elsewhere to promote equity in student attainment but they can also serve to balance special expenditure and resource problems

23

at the local level. For example, teacher retraining and/or construction may benefit from categorical grants.

Categorical grants are also effective in promoting private educational development. Special student or teacher development programs, for example, can be subsidized nationally to work with private schools or religious educational systems. Such funding separation helps to preserve the essential political integrity of private and religious educators. Moreover, categorical grants programs can be attractive to international foundations. "International donors usually prefer to create autonomous organizations to implement projects," according to Cheema and Rondinelli, "because they are often free of the political financial, and administrative constraints that shackle regular government agencies... their activities are easier to monitor and ... evaluate."³⁶ Categorical grants allow for a fluid mix of national, international and private programs.

In contrast, block grants are likely to work better with a devolution approach to decentralization than the other approaches. Categorical grants may be useful under devolution but they run counter to the theme of independence. Under block grants localities have "free choice" to administer national education subsidies largely as they see fit. These grants may be a kind of direct revenue-sharing or they may be in the form of "entitlements" weighted by local student population or economic disparities. In

the latter case, they serve to reduce local and regional inequalities and in both cases they can promote geographical equity.³⁷

Whatever the structural options for financing decentralization, the immediate problem for developmental planning involves financing the process of decentralizing educational systems. At this point it is clear that the central government, probably with international aid, must sustain much of the costs. As has been observed, even decentralization must be substantially implemented through centralized planning.

V. Implementating Decentralization

As noted earlier, decentralization is adaptable to a nearly unlimited range of educational/pedagogical goals. The specific educational components of decentralization only emerge in the process of implementation. Ultimately, any administrative system is adaptable to most pedagogical goals although costs and efficiency of the adaptation can be significantly affected by the starting point. For this reason, the implementation of decentralization planning should be task-specific. In this sense the process should materialize as a step by step response to the specific goals national educators, local communities and private supporters.

In this regard, the first tasks of decentralization involve the identification and measurement of local potential for the management of education. Developing countries must begin with a fairly comprehensive data collection system detailing the distribution of demands

and resources. These data should include macro social variables and narrower administrative variables. A list of such variables might well include the following:

Sociological Variables

Student Enrollment
 Student Enrollment Pool
 School Size and Condition
 Geographical Distribution of Schools
 Public Private Composition of Schools
 Religious/ethnic Composition of Communities
 Medium Family Income
 Mean Levels of Education

Administrative Variables

Distribution of Personnel
 Level of Teacher Training
 Availability of Teachers
 Salary Adequacy
 Local Funding
 Parental Involvement
 Special Programs

The collection of such data, presumably more extensive than the above, is relevant to decentralization both in itself and for the process of collection. Local groups, public and private, should become regular sources of data. This procedure relates well to the second major task of decentralization. Namely, local interest, initiative and organizing potential need to be stimulated from the start by national policy. However, strongly local groups, parents and private educators may feel removed from centralized education, they are not likely to respond to formalized, unsupported and unfinanced policy initiatives. Accordingly, one of the failures of past decentralization efforts has been the absence of local participation beyond the

involvement of local bureaucrats attached to the centralized educational authority. In addition, Hanson concludes that the lack of data at the local level, further inhibited local initiative after a decade of decentralization planning, in the case of Venezuela.³⁸

Similarly, a third major task of implementation is the codification of clear policy and the coordination of national directives. In this regard, another source of difficulty with decentralization according to Hanson, is the inconsistency of approaches to it from changing ministers of education. Such inconsistency can immobilize already tentative local efforts. Yet, "decentralization requires a lengthy period of gestation before its benefits will be realized," according to Rondinelli and Nellis.³⁹ In absence of a national format, long-term plans may be too quickly abandoned. On the patience involved in the implementation steps, they add:

First, small-scale decentralized programmes designed for limited impact are likely to generate more positive and durable results than large-scale, sweeping organizational reforms. Programmes should, therefore, be planned on a small scale and expanded incrementally.⁴⁰

The conclusion that only small scale beginnings are likely to work well suggests a resolution of the choice in modes of decentralization. Developing systems with little background planning should not attempt the more comprehensive "devolution" approach. Deconcentration or delegation are probably most suitable. If, however, the descriptive data along with local experience show a substantially well-dispersed set of local institutions, schools, technical and governmental agencies, the devolution of authority could be suitable.

The critical test of the viability of this policy would hinge on the ability of the localities or private groups to produce well articulated educational program plans. Such plans should further be justified in terms of the special interests, needs and resources of the local or targeted student populations.

The choice of approach between delegation and deconcentration leads to the second major requirement of implementation. The process should be context-responsive as well as task-specific. The real value of decentralization resides in its capacity to unleash the unstated or unformalized demands and interests of students, parents and educators outside the focus of centralized administration. To do so, educational perspectives must emerge independently through the local, ethnic or religious context where increased responsibility is to be localized. The transition requires special efforts to generate education-focused organizing at the local level and among private groups. Where, for example, religious organizations have traditionally provided schooling, they have often been remote from comprehensive policy-making discussions. In exchange for encouraging their participation in policy planning and subsidizing their efforts, a valuable commitment of the private sector to broad national policy can be expected. Similarly, the often undirected presence of parents and the uncoordinated community schooling can be channeled through the stimulus from the center. To the extent that a meaningful coherence between national and local or private educational goals emerges, delegation might provide the best approach. In the absence of solid local or private sector

planning, however, deconcentration would seem to be the safest approach. In this sense, context responsiveness allows for the positive expression of the political concerns leading to decentralization by encouraging participation consistent with national developmental interests while tailoring it to local and private interests.

CONCLUSION

No one can predict the concrete educational outcomes of decentralization, but then there is no real need to know them in order to justify the policy. The development of greater equity and efficiency in educational systems that were originally designed when inequity was beyond the influence of formal education and inefficiency was socially acceptable should be reward enough. Improving the administration of education in developing countries can only come by extending systemic authority beyond the center and beyond public resources because ^{these} personnel, technical resources and management can not be expanded to meet the heterogeneous needs of developing countries. In effect, the effort to decentralize education, on a small scale gradually or more dramatically, may constitute the only comprehensive reform option available to developing systems.

FOOTNOTES

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2. Shabbir G. Cheema and Dennis A. Rondinelli, "Implementing Decentralization Policies," ed. Cheema and Rondinelli, Decentralization and Development, (Beverly Hills, California: Sage Publications, 1982) pp. 14-16.
3. James Thomson and James Wunsch, "Decentralization Finance and Management for Development," U.S. Agency for International Development, May 8, 1986.
4. Ibid., pp. 5-10 and Dennis Rondinelli, "Overview of Decentralization in Developing Countries." Brief Notes for U.S.A.I.D. Workshop on Decentralization of Education Services, Washington, D.C.
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6. E. Mark Hanson, "Administrative Reform in the Venezuelan Ministry of Education: A Case Analysis of the 1970s," International Review and Education, 30, 2 (1984) p. 26.
7. Thomson and Wunsch, p. 6.
8. Kevin Lillis, "Economics of Education: Tackling the New Policy Issues," International Conference of the Institut de Recherche Sur l'Economie de l'Education, Dijon (June 1986) p. 11.
9. James W. Guthrie and Rodney I. Reed, Educational Administration and Policy: Effective Leadership for American Education (Englewood Cliffs, N.J.: Prentice Hall, 1986) p. 27.
10. Rather than narrow partisan political competition broad divisions of political culture often affect reform but the effects are controllable. See for example, Nelby P. Stromquist, "Decentralizing Educational Decision-Making in Peru: Intentions and Realities," International

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APPENDIX IX

Financial Summary Report June 1984-December 1986

FLORIDA STATE UNIVERSITY
 USAID/IEES PROJECT
 FINANCIAL SUMMARY REPORT

JUNE 1984 - DECEMBER 1986

SOURCE	ALLOCATION	EXPENDED REPORTING PERIOD 10/86-12/86	EXPENDED TO DATE 06/84-12/86	BALANCE
CENTRAL FUNDING	10,000,000	448,975.06	4,321,566.12	5,178,433.88
MISSION FUNDING				
Task Order 01: Somalia	45,000	0.00	45,000.00	0.00
Task Order 02: Somalia	36,100	0.00	36,100.00	0.00
Task Order 03: Botswana (JSEIP)	9,203,959	308,519.35	1,041,350.87	8,162,608.13
Task Order 04: Zimbabwe	137,467	11,924.28	32,690.62	104,776.38
Task Order 05: Indonesia (EPPP)	1,325,000	126,054.00	373,715.75	949,284.25
Task Order 06: Haiti	40,000	40,000.00	40,000.00	0.00
Task Order 07: North Yemen	22,577	6,158.26	11,831.57	10,745.65
Task Order 08: Haiti (IIBE)	1,521,294	200,379.71	200,379.71	1,320,914.29
Task Order 09: Liberia	44,000	42,377.16	42,377.16	1,622.84
	12,373,397	735,212.76	1,825,445.48	10,549,951.52
TOTAL:	22,373,397	1,184,185.82	6,645,011.60	15,728,385.40

FLORIDA STATE UNIVERSITY
USAID/IEES PROJECT
FINANCIAL SUMMARY REPORT
CENTRAL FUNDING EXPENDITURES

JUNE 1984 - DECEMBER 1986

CATEGORY	ALLOCATION	YEAR 1 6/84-6/85	YEAR 2 7/85-6/86	YEAR 3 7/86-6/87	YEAR 4 7/87-6/88	YEAR 5 7/88-6/89	TOTAL	BALANCE
SALARIES								
Central Management Staff								
Professional	553,842	103,371.08	97,329.38	44,360.21			245,060.67	308,781.33
Nonprofessional	252,786	46,446.88	82,514.93	42,229.27			171,191.08	81,594.92
Project Advisory Staff								
Professional	536,480	104,328.37	253,678.85	95,499.85			453,507.07	82,972.93
Nonprofessional	80,590	23,660.00	41,696.24	11,645.12			77,001.36	3,586.64
Cooperating Country	46,321	0.00	6,213.38	3,650.00			9,863.38	36,457.62
Subtotal Salaries:	1,470,019	277,806.33	481,432.78	197,384.45			958,623.56	513,395.44
FRINGE BENEFITS	351,438	55,938.14	35,986.10	35,644.60			177,568.84	173,869.16
CONSULTANTS								
Domestic	81,929	2,040.00	500.00	4,268.00			6,808.00	75,121.00
Overseas	101,057	23,566.00	63,678.70	23,171.90			110,416.60	19,379.60
Subtotal Consultants:	182,986	25,606.00	64,178.70	27,439.90			117,244.60	65,741.40
ALLOWANCES								
Post Differential	61,680	0.00	5,982.37	4,672.13			10,654.50	51,025.50
Quarters	79,240	0.00	37,161.94	20,264.61			57,426.55	21,813.45
Temporary Lodging	8,648	0.00	0.00	0.00			0.00	8,648.00
Education	35,958	0.00	0.00	0.00			0.00	35,958.00
Cost of Living	6,114	0.00	0.00	0.00			0.00	6,114.00
Subtotal Allowances:	191,640	0.00	43,144.31	24,936.74			68,081.05	123,558.95
TRAVEL AND TRANSPORTATION								
United States	48,786	16,152.11	20,084.94	4,586.83			40,823.88	7,962.12
International	813,004	90,876.68	169,664.35	48,087.33			308,628.38	504,375.62
Household Goods/Vehicles	72,987	0.00	10,129.97	1,311.45			11,441.42	61,545.58
Subtotal Travel:	934,777	107,028.79	199,879.26	53,985.61			360,893.68	573,883.31
MATERIALS AND SUPPLIES	216,130	7,932.10	14,900.06	6,004.74			28,836.90	187,293.10
EQUIPMENT	144,328	0.00	3,969.48	7,032.90			11,002.38	133,325.62
PARTICIPANT TRAINING	224,857	0.00	2,422.50	3,800.59			6,223.09	218,633.91

340

FLORIDA STATE UNIVERSITY
CENTRAL FUNDING EXPENDITURES

CATEGORY	ALLOCATION	YEAR 1 6/84-6/85	YEAR 2 7/85-6/86	YEAR 3 7/86-6/87	YEAR 4 7/87-6/88	YEAR 5 7/88-6/89	TOTAL	BALANCE
SUBCONTRACTS								
Howard University		68,960.62	157,101.11	57,967.15			284,028.88	
Inst. for Int'l Research		425,858.14	448,966.92	115,057.62			989,882.68	
State Univ. of NY/Albany		439,522.40	499,299.82	286,788.40			1,225,610.62	
Little Computer That Could		0.00	0.00	4,800.00			4,800.00	
	5,102,495	932,341.16	1,105,367.85	462,613.17			2,500,322.18	2,602,172.61
OTHER DIRECT COSTS								
Postage and Shipping		1,933.67	12,391.62	3,524.75			17,850.02	
Communications		6,228.21	17,194.28	6,277.22			29,699.71	
Printing and Reproduction		8,191.79	48,010.22	22,475.45			78,677.44	
Word Processing		3,047.40	12,144.08	4,842.74			20,034.22	
Media Services		1,310.92	596.91	0.00			1,907.83	
Library Services		261.40	154.66	0.00			416.06	
Language Training		0.00	181.78	168.65			350.43	
Passport/Visa/Medical		258.15	1,038.82	264.97			1,561.94	
DEA Insurance		1,890.90	5,638.28	1,774.18			9,303.36	
Facilities Rental		542.20	4,732.26	0.00			5,274.46	
Equipment Rental		209.35	498.10	0.00			707.45	
Equipment Repair		0.00	0.00	47.62			47.62	
Conference Support Services		0.00	1,183.20	0.00			1,183.20	
Advertising		0.00	441.00	0.00			441.00	
Fees		0.00	173.20	59.55			232.75	
Field Support Services								
Administrative		0.00	1,020.00	182.25			1,202.25	
Typing/Clerical		0.00	2,455.22	0.00			2,455.22	
Translation		0.00	682.50	3,000.00			3,682.50	
Research/Data Collection		0.00	259.31	19.29			278.60	
	502,784	25,855.99	108,795.44	42,634.63			175,284.06	127,499.94
OVERHEAD	878,546	122,088.46	215,157.44	84,439.86			419,685.78	458,860.21
TOTAL	10,000,000	1,552,614.99	2,323,235.92	945,717.21			4,821,566.12	5,178,433.81

341

APPENDIX X

Outline of Training Manual for Sector Assessment Methodology

Outline of Training Manual for Sector Assessment Methodology

1. Goal and Purpose
2. Overview
3. Introduction to the Sector Assessment Approach
 - 3.1 Purpose and Data Sources for this Manual
 - 3.2 Systems Approach
 - 3.3 Applications
 - System Efficiency
 - Baseline Information
 - Constraints
 - Subsector Priorities
 - Synthesis
 - Planning Tool
 - Donor Coordination
 - 3.4 Institutionalization
4. Preparation
 - 4.1 Scope of Work
 - 4.2 Personnel
 - Professional
 - Administrative and Support
 - 4.3 Level of effort
 - 4.4 Management
 - 4.5 Logistics
 - Office Space
 - Equipment
 - Supplies
 - Administrative Support
 - Resource Documents
 - Transportation
 - Photocopying Service
 - 4.6 Schedule
 - Orientation
 - Research and Writing
 - Report Presentation
 - Review
 - Revisions
 - 4.7 ● Institutional Relationships
5. Perspectives
 - 5.1 Systems Approach
 - 5.2 National Goals
 - 5.3 Education and Training Targets
 - Social Demand Approach
 - Manpower Requirements
 - Social Investment Approach
 - Other Considerations

6. Conceptual Framework

6.1 Content Areas

- Synthesis
- Economic and Fiscal Analysis
- History and Structure of the Education and Human Resources Sector
- Management Capacity
- Preprimary Education
- Primary Education
- Secondary Education
- Teacher Training
- Higher Education
- Vocational Technical Education
- Nonformal Education
- Special Studies
- Background Documents

6.2 Analytic Themes

- Introduction-Importance of Relationships Within and Between Themes
- External Efficiency
 - Curriculum
 - Basic Education
 - Secondary Academic Education
 - Diversified Secondary Education
 - Vocational and Technical Education
 - Nonformal Education
- Internal Efficiency
 - Curriculum
 - Quantitative Efficiencies
 - Quality of Learning
 - Unit Costs
 - Cycle Costs
 - Dropouts and Repetition
 - Student/Teacher Ratios
 - Multiple Shifts
 - Distance Learning
 - Instructional System
 - Teacher Training
 - Supervision
 - Examinations
- Access and Equity
 - Access
 - Equity
- Administration and Supervision
 - Managerial Effectiveness
 - Supervision
 - Educational Planning
 - Research
- Costs and Financing
 - Costs and Financing
 - Funds for Current and Proposed programs
 - Sources of Nonbudgetary Funds
 - Payment by Program Beneficiaries

- Self-Help Activities
 - External Assistance
 - Reduction of Unit and Cycle Costs
 - Improved Management
 - Alternative Instructional Systems
- 6.3 Subsector Data Requirements
- Introduction--Data Types and Their Utility
 - Enrollments
 - Teachers
 - Facilities
 - Curriculum
 - Examinations
 - Supervision and Management Data
 - Indicators of Quality of Instruction
 - Cost and Finance Data
- 6.4 Data Quality
- Precision
 - Availability
 - Timeliness
 - Scale and Level of Aggregation
7. Writing
- 7.1 The Research Task
- Collecting Data
 - Interpreting Data
 - Supporting Evidence
- 7.2 Writing Style
- 7.3 Format
- Synthesis
 - Economic and Fiscal Analysis
 - History, Structure, and Management of the Sector
 - Formal Education
 - Vocational and Technical Education
 - Special Studies
 - Background Documents
8. Presentation
- 8.1 Oral Presentation
- 8.2 Finalization of the Assessment Document
9. Applications
- 9.1 Examples of Prior Applications
- 9.2 Issues Raised by the Sector Assessment Process