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FINAL

ANNUAL WORKPLAN FOR PRIMARY EDUCATION
BALOCHISTAN PROVINCE
PAKISTAN

FISCAL YEAR 1989/1990

October 16, 1989

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1. SUMMARY

This workplan for Balochistan Province sets forth the goals and initial supporting activities for an intensive ten-year effort to improve the primary education system (Grades 1-5). In the current fiscal year (1989/1990) the province has allocated Rs.659,467,000 (\$32,973,350) to support primary education. Of this total, Rs.441,513,000 (\$22,075,650) is for recurrent costs and Rs.217,954,000 (\$10,897,700) is for development costs. This effort will begin policy reforms and capacity strengthening in the education system that will improve the quality of education for all primary level students. It also will increase the number of school places, especially for girls in rural areas.

A Deputy Director for Primary Education will be established in the Education Department this year to support the implementation of this provincial program, and substantial increases will be made in the resources allocated to primary education. The Deputy Director will manage a large number of coordinated activities in the following areas: administration and management, teacher supply and training, instruction and materials, and construction. These activities are summarized below, and a first-year budget is given for each one. At an appropriate later time, an administratively separate Directorate of Primary Education will be established.

The ten-year provincial program comprises a closely integrated set of activities directed at achieving specific benchmarks set forth below. These benchmarks focus on policy reform, enrolment increases, budget support, new and refurbished schools, more and better trained teachers, and improved and more widely available instructional materials.

2. PURPOSE

This annual workplan is for fiscal year 1989/1990 primary education activities. The plan and budget cover all activities in the primary education system, including those funded by the province as well as ones sponsored by donor agencies. The primary education activities already in place are described in the beginning of section 6 below, followed by the increased level of activities now planned by the province.

3. PROGRAM GOALS

This ambitious and important plan to improve primary education has two major goals:

Goal One: Establish a foundation for sustained economic and social development throughout the province by encouraging policy reforms in primary education.

Goal Two: Strengthen the institutional capacity of the province to formulate and implement policy that will improve primary education access equity and equality.

Expanding the level of literacy will contribute significantly to increased and more widely distributed incomes, enhanced agricultural production, improved health, lower fertility, and general social and economic development. The more immediate objective of the provincial program is to increase access to primary education (Grades 1-5) and to improve the equity, quality and efficiency of the sector.

4. PROGRAM BENCHMARKS

The policy reform and action benchmarks cited below will indicate progress towards the ten-year provincial program goals. In the 1990 annual review, the asterisked activities will be considered high priority.

4.1 Policy Reform. The following policy reform benchmarks have been adopted for enrolment targets, budget support, and the establishment of a Directorate of Primary Education.

4.1.1 Enrolment Targets. The following ten-year minimum enrolment targets have been adopted for 1999, with annual progress to be made toward them. These targets include Kachi (pre-primary) classes plus Grades 1-5.

Boys enrolment: 564,000

Girls enrolment: 193,000

* **4.1.2 Budget Support.** Budget allocations for primary education within fiscal year 1989/1990, both development and recurrent, will comprise an increase of 8% in real terms over the previous year.

* **4.1.3 Additional Director for Primary Education.** The Education Department will establish a post of Deputy Director for Primary Education, with appropriate support staff, before June 5, 1990.

4.1.4 Directorate of Primary Education. The Education Department will establish an administratively separate Directorate of Primary Education at an appropriate time.

4.2 Action Benchmarks. The following action benchmarks have been adopted for improving access to and the quality of primary education.

4.2.1 Access Benchmarks. Access benchmarks have been adopted for construction, site selection, enrolment targets, and teacher supply (incentives).

Construction. * Planning will be started to use private contractors to design, construct, and equip new primary schools and related structures, based upon criteria mutually developed and agreed upon with A.I.D., to accommodate expanded enrolments. Funds will be budgeted and expended for the maintenance of existing and new buildings. The Education Department will establish with A.I.D. a set of mutually agreed upon criteria for design and construction

of all buildings (see Attachment A.).

The following targets are set for the current fiscal year, including the already planned construction as well as additional construction to support the ten-year plan.

<u>Target</u>	<u>Number</u>
Construction of primary schools	100
Additional classrooms at shelterless primary schools in Quetta	50
Additional classrooms at overcrowded primary schools	150
Construction of quarters for primary school teachers	3
Upgrading of primary schools to middle schools	40
Upgrading of teacher training schools to CEEs	2
Construction of CEEs (1 male, 1 female)	2
Additional classrooms at CEEs (5 locations)	5
Additional six classrooms at Quetta CEE	6

Site Selection: The Education Department will establish with A.I.D. a set of mutually developed and agreed upon criteria for site selection (see Attachment A).

Enrolment Targets. The following enrolment targets are set for the 1989/1990 fiscal year, representing an increase of 2.5% from the previous year. The targets are based on 1988/1989 enrolment figures provided by the Education Department. The figures include mosque schools and Kachi (pre-primary) classes plus Grades 1-5.

Boys enrolments: 308,900

Girls enrolments: 57,300

* Teacher Supply (Incentives). A study will be started to assess incentives that might be offered female teachers to encourage them to accept postings in rural areas (see section 5.1.17 below). An existing program that pays stipends to girls attending middle and secondary schools will be extended to all girls of these levels attending schools outside Quetta (see section 5.2.4.1 below). There will be an expansion of the number of recipients in existing programs that provide monthly allowances for those who enter PTC and CT teacher training programs (see section 5.2.4.4 below). A resource survey will be conducted with the assistance of UNICEF to identify candidates for training courses and teaching posts (see section 5.1.18 below).

4.2.2 Quality Benchmarks. Quality benchmarks have been adopted to improve the quality of teacher training programs, and the availability and quality of instructional materials.

Teacher Quality (Programs). An assessment will be started of the content knowledge in the most important primary level subjects for entering and outgoing PTC students, as well as practicing teachers, to determine the strengths and weaknesses that need to be addressed in planning training courses and materials (see section 5.2.1 below). A study to improve teacher performance also will be initiated (see section 5.1.19 below).

Instructional Materials Availability. A plan will be started for the development of annotated editions of textbooks for teachers use and for testing draft editions in Urdu for Grades 1-5 (see section 5.3.3 below). Planning will be started for a program to supply supplementary reading and learning materials to primary schools, to include a children's magazine, science and mathematics supplementary learning materials, and children's books (see section 5.3.4.1 below). Planning will be started for the publication and distribution of additional teacher support and auxiliary print learning materials (see section 5.3.4.2 below). In addition to its regular publishing program for primary textbooks in Urdu, the Board also will produce a language primer and Grade 1 textbooks in Pushto, Brahavi, and Baluchi (see section 5.3.4.4 below). As part of the cost effectiveness study (section 5.3.4.3 below), the Board also will study ways to increase the efficiency of their publication and distribution activities to improve the timeliness of textbook availability.

Instructional Materials Quality. Funds will be budgeted and expended to study cost-effective ways to improve the quality of textbooks and instructional materials (see section 5.3.4.3 below). A plan will be developed for extensive review of existing curricula (see section 5.3.1 below).

5. PLAN OF ACTIVITIES.

This Annual Workplan has been written with the major annual goals and benchmarks for the primary education system in mind. There are four subsections below, Administration and Management, Teacher Supply and Training, Instruction and Materials, and Construction, each with specific objectives and the instrumental activities to achieve those objectives.

The following part of each sub-section below describes provincial activities already planned for primary education during the 1989/1990 fiscal year. This is followed by a description of the activities now proposed to support the provincial effort to improve primary education. An estimated cost is given for each supporting activity. These costs exclude technical assistance and training costs, as these will be provided by A.I.D. These activities focus on support for the ten-year program benchmarks presented above in section 4.

5.1 Administration and Management. The current Administration and Management of primary education is the responsibility of the Education Department. This department is now managing a primary education system for about 360,000 students attending almost 6,000 primary schools (including mosque schools) staffed by 13,700 teachers. The system is managed by 20 District Education Officers (DEOs) at the district level. The DEOs report to the Deputy Director for Administration, who reports to the Director of Education (Schools). The Director of Education (Schools) reports to the Secretary Education. The total recurrent and development budget for primary education for the current fiscal year is Rs.659,467,000 (\$32,973,350).

The 18 activities related to administration and management are described below.

* **5.1.1 Additional Director for Primary Education.** Establish a position of Deputy Director for Primary Education, to be responsible to the Director of Education (Schools). The Deputy Director will have a support staff and will be responsible for planning, management, and expansion of primary education.

Cost (year 1): Rs.814,568 (\$40,728) - based on the following for nine months: salaries (Rs.62,760 for officers, Rs.64,440 for other staff), allowances (Rs.71,368), equipment (Rs.200,000), transportation (Rs.200,000), and commodities (Rs.216,000).

5.1.2 Organizational Studies. Four organizational studies are planned, as described below.

* **5.1.2.1 Activity One: Directorate.** A study will be started on the structure and functions of the Directorate of Primary Education (Male and Female Sections), and an assessment of current capacity to manage and plan for improvements in the training and supply of teachers. The outcome of this study will be a design for an improved administrative and management structure to ensure the efficient integration of all relevant functions in the Directorate. This will include a description of the specific roles, functions, and recruitment requirements for positions in the directorate, staff development plans, and an incentive structure for meritorious performance. This study will assess whether a Research and Development (R&D) unit should be established in the Directorate.

Cost (year 1): Rs.300,000 (\$15,000) plus about three months of technical assistance. (Most studies in this plan are budgeted at Rs.300,000 for estimating purposes. Some will cost more, and others less. This amount is based on three local specialists for three months, with related costs).

5.1.2.2 Activity Two: Textbook Board. Plan and begin an organizational study of the Textbook Board to develop an organizational structure that will enable the Board to become more efficient in its operations, to plan its staff and equipment

growth to meet new demands, and to expand its services. The plan will analyze additional staff needs and contain a schedule for adding them to meet new service demands, planned growth, and to increase the operational efficiency of the Board's business, editorial/academic, and production/distribution functions.

Since new demands have already been placed on the Board to produce textbook in Brahavi, Pushto, and Baluchi, some additional staff are required immediately. The following staff members should be added now, so the Board can meet its new mandate to publish texts in the mother tongue: a subject specialist for each of Brahavi, Pushto, Baluchi, and Islamiat/Arabic. (There will be a need for additional staff to strengthen the editorial capabilities and to improve operational efficiencies, such as subject specialists in Science, Urdu, and Social Studies. There also will be a need for a librarian, research officers, an assistant secretary, an assistant accounts officer, and a superintendent. However, the need for these and any other posts, their qualifications, job descriptions, grade levels, and a schedule for their addition will be determined by the organizational study).

Cost (year 1): Rs.300,000 (\$15,000) plus two months of technical assistance (one month each for two experts - one to study the business/production/distribution functions and one to study editorial functions).

5.1.2.3 Activity Three: Bureau of Curriculum and Extension Centers. Plan and begin an organizational study of the Bureau, to include its structure, functions, objectives, operational responsibilities, staffing patterns, and staff qualifications in relation to the improvement of primary education. The study will focus on improving primary school curriculum and instruction activities, coordinating and evaluating donor-supported primary school curriculum/instruction and teacher training projects and their products, and improving teacher supply and training for primary school, especially female teachers.

The objectives of the study are to increase the efficiency of the Bureau's primary education responsibilities and to improve the quality of its primary education programs. The study should give serious consideration to strengthening the Bureau's capacity to meet the new research, development, and evaluation service demands it must face in relation to improving primary education.

Cost (year 1): Rs.300,000 (\$15,000) plus one month of technical assistance.

* **5.1.2.4 Activity Four: EMIS.** Begin a study of the organization, staffing, and equipment requirements for the Education Management Information System (EMIS). The study will define the information needs for policy analysis, analytic studies, management, and monitoring of progress in primary education. The EMIS will be planned to make school-level data available in formats that are standard across schools and that will contain a core set of information consistent with a planned national EMIS. This study will include design of the

data base for the EMIS as well as the specifications for the equipment. Staff training needs also will be specified, including short-term training, seminars, and study tours.

Cost (year 1): Rs.300,000 (\$15,000) plus one month of technical assistance.

5.1.3 Policy Studies. Begin studies related to major policy issues in primary education. Four studies will begin, including one which reviews current policies related to teacher recruitment and distribution and considers potential new policies to relieve the expected teacher shortages. Policy studies related to teachers might include those concerned with increasing the supply of qualified candidates who might enter teaching, the distribution of teachers, and removing constraints on and encouraging better teaching in the classroom. Among other topics that may be studied are the implications of implementing current language-of-instruction policies, more effective scheduling of the school year, the impact of mosque schools on access and instructional quality, use of the private sector for primary education, elimination of the import duty and tax on textbook paper, and the importance of schools as a community resource. The main criterion for the selection of the study topic will be that the information obtained have a direct impact on the effectiveness or efficiency of primary education.

Cost (year 1): Rs.1,200,000 (\$60,000) - based on four studies x Rs.300,000 with four months of technical assistance for each.

5.1.4 EMIS Development. Establishment of an EMIS to strengthen and support management, planning, assessment, and policy formation capabilities of the Education Department, including the Directorate of Primary Education. The EMIS will make data available to analysts and decision makers in a form standard across schools and districts, and compatible with the proposed national EMIS currently planned with UNDP funding.

Cost (year 1): Rs.3,200,000 (\$160,000) - based on central and district staff, including a microcomputer for each district (Rs.2,200,000), plus five one-month study tours for staff (Rs.1,000,000). (Most study tours in this plan are budgeted at Rs. 200,000 for each month for estimating purposes. Some will cost more and others less. This amount is based on international and domestic travel, allowances for meals and lodging, fees for institutions and programs visited, and miscellaneous costs). The remaining EMIS costs for central equipment, technical assistance, and training will be provided by A.I.D.

5.1.5 Curriculum and Teacher Project Coordination. The two interrelated activities described below are the essential beginning organization activities needed in the first year to start this part of the plan.

5.1.5.1 Activity One: Research, Development, and Evaluation. The Bureau of Curriculum is responsible for managing and coordinating the UNICEF Primary Curriculum Reform Project (PCRF) to be operated in the Sibi District. A project coordinator has been appointed and the project has begun. However, if the Bureau's responsibilities for managing and coordinating the project are to be completed satisfactorily, the Bureau will need its own research and development cell, which should operate under the general technical supervision and guidance of the research and development unit to be established in the Directorate of Primary Education.

The Cell should be capable of designing and conducting research and formative evaluation of existing and new curriculum and teacher training designs, plans, and projects, and should have the ability to design, develop, and evaluate achievement tests and other research and measurement instruments. This will require a comprehensive plan and schedule for training staff, possibly changing qualifications for future staff, some staff additions in future, and technical assistance. Since the need for the Cell is apparent now, activity to design its structure, duties, responsibilities, and the training plan and schedule should begin as soon as possible, in parallel with the organizational study of the Bureau.

Cost (year 1): Rs.300,000 (\$15,000) plus six weeks of technical assistance.

5.1.5.2 Activity Two: Coordination and Management of Related Activities. Begin development of an organizational structure and plan for the Bureau to work with Directorate of Primary Education officials to coordinate and manage all donor support and other primary school curriculum and instruction projects, either now operating or planned. (The need for this activity and its staffing and staff qualifications requirements will be added to and coordinated with the organizational study of the Bureau).

Cost (year 1): Rs.100,000 (\$5,000) plus six weeks of technical assistance.

5.1.6 Textbook Board - Strengthen. Four activities are planned to strengthen the Board, as described below. Except for 5.1.6.1, it will be more efficient and cost effective to conduct these activities with the NWFP Textbook Board, when possible.

5.1.6.1 Activity One: Training. As soon as possible after the Board has been provided with at least one computer (PC with software, printer, and other related equipment), begin training for computer uses in business, editorial, and production/distribution functions. This training should be done on site, if at all possible.

Cost (year 1): provided by A.I.D

5.1.6.2 Activity Two: Study Tour. Conduct study tour for

selected editorial staff of the Board and one or two appropriate members of the Curriculum Bureau to visit U.S. textbook publishers to study the organization of their editorial functions, with particular reference to the design and development of annotated editions of textbooks for teachers, and the development of diagnostic, review, and mastery tests keyed specifically to objectives and to remedial lessons.

Cost (year 1): provided by A.I.D., including a host/guide.

5.1.6.3 Activity Three: Study Tour. Conduct study tour for one member of the production/distribution staff to visit textbook publishers in countries with similar publishing systems (i.e., parastatal) to study their inventory and distribution systems (e.g., Malaysia, Philippines, Singapore, Thailand).

Cost (year 1): provided by A.I.D.

5.1.6.4 Activity Four: Training. Begin a study and the development of a plan and schedule to meet staff development and training needs of the Textbook Board, consistent with the outcomes of the organizational study.

Cost (year 1): Rs.100,000 (\$5,000) plus one month of technical assistance.

5.1.7 Curriculum Bureau - Strengthen. Two activities are planned to strengthen the Bureau, as described below.

5.1.7.1 Activity One: Study Tours. Two six-week study tours, for two members each, to developing countries facing similar challenges of expanding access to primary schools, increasing enrolment (particularly of girls), multiple language instruction, and enhancing the efficiency and effectiveness of the primary school program through improving curriculum and instruction, teacher supply, and conventional and refresher teacher training. (Suggestions for countries to visit include India, Malaysia, Indonesia, the Philippines, Thailand, and/or Singapore).

Cost (year 1): provided by A.I.D.

5.1.7.2 Activity Two: Workshops. Two workshops, held after the design of the Bureau staff training plan for coordinating the UNICEF PCRP, for four weeks each. One in setting objectives and in criterion-referenced test item and item pool design, computerization, and development to measure attainment of the objectives; and one in establishing and managing a quality field-based pilot testing, evaluation, and dissemination system.

Cost (year 1): Rs.200,000 (\$10,000) plus two months of technical assistance.

5.1.8 Curriculum Wing - Strengthen. There are three activities

planned to strengthen the Curriculum Wing, as described below.

5.1.8.1 Activity One: Study Tours. One member of the Wing should accompany the Bureau members in the study tours described above in section 5.1.7.1.

Cost (year 1): provided by A.I.D.

5.1.8.2 Activity Two: Workshops. Senior subject specialists in the Wing should participate in the first workshop described above in section 5.1.7.2, on setting measurable objectives, designing criterion-referenced test items, and computerizing an item pool.

Cost (year 1): Rs.80,000 (\$4,000)

5.1.9 Teacher Supply and Training Plan. Begin preparation of a plan for the quantitative requirements for teacher supply and training for the ten years of the provincial program (1989-1999). Studies will focus on existing capacity for training and recruiting teachers, the numbers of teachers needed to achieve the program targets, and the expected deficits given current capacity. A master plan will be developed to demonstrate how existing capacity can be expanded to meet the program requirements and to show how existing inservice teachers can be given PTC training as well as periodic refresher courses to improve their skills.

The plan will specify policy changes needed to achieve the outcomes, staff required and how they should be trained, existing capacity that can be expanded, the most appropriate locations for new capacity, and special problems in each geographical area. Special attention will be given to the difficult problem of recruiting and training rural female teachers. The plan will propose ways to address all these issues and prepare a schedule for how construction, refurbishing, policy decisions, and other required changes can be accomplished as efficiently as possible. Consideration should be given to eventually raising the qualifications of teachers so that preservice training would be required before entry into service. (This requirement should improve the quality of teachers and reduce recurrent costs). Care should be taken, however, that the problems of teacher supply are solved before setting higher qualifications.

Cost (year 1): Rs.1,200,000 (\$60,000) eight persons over six months plus three months of technical assistance.

* **5.1.10 School Mapping.** Begin a study of the location, size, type, and condition of all primary schools and coordinate this information with population distribution. It will be necessary to ensure that necessary information from the census and from any previous school mapping survey is made available for this study. The product of the study will be recommendations for siting new schools, rehabilitation of existing schools, and the needs for equipping new and existing schools.

Cost (year 1): Rs.1,800,000 (\$90,000) - based on 50 survey researchers for eight months (Rs.900,000), other expenses such as mapping and analysis of results (Rs.900,000), plus three months of technical assistance.

* **5.1.11 School Census.** Begin a baseline study to provide statistics on teacher supply and characteristics, student enrolments, grades, classes, and related information. Care must be taken to ensure that correct counts of children by sex and by grade are taken in each school.

Cost (year 1): Rs.1,800,000 (\$90,000) based on ten researchers for six months, plus three months of technical assistance.

5.1.12 Female Promotion. The following two activities are planned to promote females in management positions.

5.1.12.1 Female Promotion Plan. Develop a plan for the promotion of female staff so they can assume policy and decision making positions at provincial, divisional, and district levels. This plan will recommend training in management and decision making for relevant females, and possibly also males, who deal with issues related to female education. Promising young women identified through the Human Resource Survey (see 5.1.18 below) may be offered overseas or other training to prepare them to assume management positions.

Cost (year 1): Rs. 100,000 (\$5,000) plus one month of technical assistance.

5.1.12.2 Activity Two: Female Study Tours. Six study tours will be conducted as follows. One female principal of a CEE will go to a Third World country to study teacher training colleges. Two senior CEE staff will visit training centers, one going to the U.S. to see explicit teaching methods being used in primary schools, and one to a Third World country where outcome-based education exists. One senior policy person should take part in a management and training program in the U.S. Two high school or primary school principals should go to any country where they can learn about school management and schools as a community resource.

Cost (year 1): provided by A.I.D.

5.1.13 Supervision and Learning Coordinator Effectiveness Plan. Begin a study to evaluate present supervisory and Learning Coordinator (LC) effectiveness. The study will analyze the strengths and weaknesses of the current system and propose measures either to ensure a more effective instructional role for these personnel or to transfer these instructional leadership responsibilities to other personnel such as headteachers.

The study will produce a plan to strengthen instructional

leadership capacities and to coordinate these activities with teacher training courses. It will also suggest training program objectives for instructional leaders. The study should consider establishing an official headteacher position, recognized with an appropriate grade level, and with specified responsibilities including instructional supervision of teachers in the classroom. Headteachers would be responsible for instructional quality in their schools.

Cost (year 1): Rs.400,000 (\$20,000)

5.1.14 Inservice Training (Administrators, Supervisors, and Headteachers). Prepare a plan for the inservice training of administrators, DEOs, ADEOs, and ASDEOs to improve job related skills. The plan will recognize the new responsibilities of these officials as defined in the organizational study (see 5.1.2.1 above). The training courses should stress instructional management skills to coordinate the training of all these personnel toward the same objective of better classroom learning. They will include training for headteachers in management skills, planning, school supervision, teacher guidance, record keeping, and promoting better school-community relations. A pilot training course will be set up in the second year and, if evaluations prove positive, the course would become a regular requirement for administrators, supervisors, and headteachers.

Cost (year 1): Rs.400,000 (\$20,000) plus one month of technical assistance.

5.1.15 Conferences and Seminars. Conduct three one-week workshops for editors, textbook writers, and selected members of the Bureau of Curriculum to improve skills in writing and editing, with particular emphasis on the design and preparation of annotated teachers' editions of textbooks, with the NWFP Textbook Board, if possible.

Cost (year 1): Rs.80,000 (\$4,000) plus one month of technical assistance.

5.1.16 Achievement Testing Plan. Design and plan a study to begin as soon as possible in year two, in coordination with the two Bureaus of Curriculum and Directorates of Primary Education (Balochistan and NWFP) and the Curriculum Wing, to design, develop, and establish a system for the continuous assessment of student achievement at the primary level. The study will establish the types of assessment instruments required for the various class levels to meet both diagnostic and summative achievement evaluation needs. The purposes will be, for the diagnostic examinations, to help teachers evaluate student progress for remedial teaching purposes if necessary and, in the case of the summative, to evaluate and support teacher performance and to allocate resources to those schools most in need of such assistance.

Cost (year 1): Rs.300,000 (\$15,000) plus one month of

technical assistance.

* **5.1.17 Female Teacher Incentive Plan.** The Directorate of Education (Female) will begin preparing a plan of what is necessary to increase the supply of female teachers in rural areas. The plan should provide information on where girls' primary schools could be realistically upgraded to middle schools, where primary schools should be constructed to begin building cadres of teachers for the primary level, where female or male teachers are available to teach in girls' schools (using information gathered as part of activity 5.1.18 below), where transportation could be used to bring teachers to schools, and related topics. In preparation for the plan the staff should also evaluate the use of cluster hostels to see if this is a viable solution to the rural teacher problem before any new hostels are constructed.

The plan will be a strategy paper identifying the policies, incentives, school location criteria, and other needs such as residences, hostels, and transportation, that are required for girls' enrolments to increase in rural areas. The plan should build on the experience developed during the experimental opening of the presently closed girls' schools where incentives and other inducements will be tried to attract teachers to serve in difficult areas (see 5.2.4.3 below). When the plan is completed all construction related to females should be reviewed by the Directorate of Education (Female) to ensure that it will be strategically located to increase girls' enrolments as outlined in the plan. Surveys which relate to females should also be reviewed by women officials to ensure that the information collected covers the areas relevant to their planned concerns.

Cost (year 1): Rs.400,000 (\$20,000) plus two months of technical assistance.

* **5.1.18 Human Resource Survey.** The Directorate of Education (Female) in coordination with and partially funded by UNICEF will conduct a survey of potential candidates for further training and for teaching posts. They will identify female graduates of each education level and where possible match them with opportunities in conventional or distance programs so they may continue their studies. They will also identify promising young women for long- and short-term training in educational management and administration, and list the names and residential locations of girls who are middle and matric level graduates willing to enter teaching. The Directorate of Education (Female) will survey existing institutions in the formal system while UNICEF will contribute survey information on potential candidates in areas where there are no educational opportunities for girls. The product of this joint effort will be an education human resource inventory of potential candidates for further training and for primary school teaching posts. Though directed primarily at securing new female candidates for teaching posts, it will include others such as retired males or overage females who are willing to return to teaching. Eventually this information will

provide a human resource file in the EMIS.

Cost (year 1): Rs.200,000 (\$10,000) to include salary, travel, and overnight expenses of field workers canvassing the formal system plus two months of technical assistance. UNICEF will fund the survey of villages where formal schools for girls do not exist.

5.1.19 R&D Studies. There are two topics planned for investigation through these studies. These will be R&D studies related to problems affecting instruction at the classroom level: multigrade teaching, and possible incentives to improve teacher performance. Later studies might include topics such as difficulties with the language of instruction, the headteacher's role, effective school management, and a study of matric leaving competency to assess the level of teacher qualifications. These studies will identify useful applications to improve the quality of teacher training and other learning or systems related problems.

Cost (year 1): Rs.600,000 (\$30,000) - based on two studies x Rs.300,000, plus two months of technical assistance.

5.2 Teacher Supply and Training. During the 1989/1990 fiscal year the Education Department expects to create the following new teaching posts.

Additional teachers needed in 1989/1990

<u>Need Category</u>	<u>Teachers Required</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
Existing schools requiring additional teachers	750	350	1,100
New mosque schools	200	-	200
Planned new schools (200 boys' schools and 100 girls' schools)	200	100	300

At present the primary system contains the following numbers of teachers requiring PTC inservice and/or periodic refresher training.

Existing teachers and their status

<u>Category</u>	<u>Teachers Present</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
Untrained	7,391	1,025	8,416
Trained	4,000	1,300	5,300

The capacity to train teachers in 1989/1990 is estimated at the following:

Training capacity for 1989/1990 (estimated)

Category	Training Capacity		
	Male	Female	Total
PTC Training			
CEE Conventional	655	100	755
AIQU Distance	418	64	482
CT Training			
CEEs	240	40	280
Refresher Training			
CEE and Bureau of Curriculum Courses	299	86	385
Administration and Management	0	0	0

The eight additional activities related to teacher supply and training are described below. These activities will strengthen long-term planning and management capacity, prepare for anticipated increases in teacher training and supply, reduce the number of untrained teachers, and begin the steps necessary to make qualitative improvements in training programs and teacher performance in the classroom.

5.2.1 Improvement in Teacher Content Knowledge. Begin an assessment of the content knowledge in the major primary level subjects of entering and outgoing PTC students to improve the quality of PTC and refresher courses. Students also will be tested in the ability to read and write in the various languages of instruction. The purpose is to determine the weaknesses and strengths in content knowledge that need to be addressed in planning training courses and materials. When coordinated with the experiment proposed for the second year in the use of explicit teaching methods, this assessment will provide a solid base for improving the quality of teacher training programs. This effort will produce a detailed plan for preservice and refresher courses to improve teacher content knowledge, identify the areas which need special support, and propose possible differences in courses that should be prepared for male and female teachers. The plan will include recommendations for courses to train trainers for the subject courses.

Cost (year 1): Rs.300,000 (\$15,000) plus two months of technical assistance.

5.2.2 Training of Untrained Teachers: PTC Training (AIQU Inservice). AIQU will be contracted to expand on a limited basis their distance training program by 500 additional male and female teachers. Trainees will begin their course work during fiscal year 1989/1990. The purpose will be to provide training for teachers who continue to teach in primary schools. The program will pay the costs usually paid by the students (Rs.382), as well as other well as other costs borne by AIQU, to expand their courses by this number of students. These students will be eligible for the monthly incentive of Rs. 200 given to private students in the conventional PTC courses. (Costs for the incentives appear below under 5.2.4.3). Students who receive this incentive will agree to serve for two years in remote areas.

Cost (year 1): Rs.1,600,000 (\$80,000) - based on 500 students at Rs3,200 per student.

5.2.3 Improving the Quality of PTC Training. There are two activities to improve the quality of teacher training.

5.2.3.1 Activity One: Improvement in Teacher Performance. Staff of the sections responsible for teacher training will contact the appropriate members of the training staff in NWFP to keep abreast of the activities preparing for experimentation with explicit teaching methods. These activities in NWFP will include limited production of support materials; brief training courses in explicit teaching methods for teachers, supervisors, and managers of the methods; sample selection and controls for the study; and evaluation and feedback mechanisms to assess the success of these methods.

Balochistan would produce limited materials and be involved in the early trials of these methods but would not need to duplicate other efforts required to prepare for the trials. The experiment would build on the research of the BRIDGES project and AEPAM related to effective teaching practices in Pakistan, and would reinforce the development of an integrated research, curriculum, and training effort. If explicit teaching proves effective, a short methods course will be prepared, coordinated with the changes above related to teacher content knowledge (see section 5.2.1), for use in refresher courses and preservice training, as well as plans to support expansion of these methods.

Cost (year 1): Rs.200,000 (\$10,000) for staff travel, limited production of materials, coordination with NWFP, and research staff time.

5.2.3.2 Activity Two: Assessing the PTC Training Program. Begin a study to assess the impact of PTC Conventional and AIQU Distance Training on the classroom performance of teachers. This may be coordinated with the study of explicit teaching methods (section 5.2.3.1).

5.2.4 Increasing Teacher Supply. There are three activities planned to increase the supply of females qualified to enter teaching, and one activity to increase the number of males and females entering PTC training courses.

5.2.4.1 Activity One: Rural Middle and Secondary School Stipends for Girls. An existing program that pays stipends to girls attending middle and secondary schools will be expanded in all areas except Quetta. All middle and secondary female students in these districts will be given stipends. The purpose is to increase the pool of females qualified to become teachers.

Cost (year 1): Rs.3,300,000 (\$165,000), based on 3,300 candidates at Rs.1,000 each per year.

5.2.4.2 Activity Two: Distance Certification Incentives (AIOU Matric). Incentives will be provided for 300 female matric students registered in the AIOU certification program now funded by the Dutch government. The Directorate of Education (Female) should study the possibility of increasing this program and introducing a similar program for girls who wish to obtain middle pass degrees. The Directorate of Education (Female) should also coordinate closely with AIOU to identify students who might enter these degree programs and suggest ways these programs could effectively reach a large number of students.

Cost (year 1): Rs.200,000 (\$10,000) for staff travel and recruitment of students. (Incentive costs are included in section 5.2.4.1 above).

5.2.4.3 Activity Three: Recruitment of Teachers to Open Closed Girls' Schools. The Directorate of Education (Female) will initiate activities to open existing girls' schools closed because teachers were not found to serve in difficult areas. Media campaigns may be mounted and incentives offered on an experimental basis to attract teachers to these areas. Future plans to open girls' schools in remote areas should take into consideration the results of these experiments with media campaigns and with incentives (see also 5.1.17 above).

Cost (year 1): Rs.800,000 (\$40,000) for staff travel, incentives, and other requirements to open the schools.

5.2.4.4 Activity Four: Expanded Allowances for PTC and CT Students. Expand the number of male and female recipients in conventional or AIOU distance programs who receive monthly allowances in PTC and CT teacher training programs. The amount should be enough to provide for their full living expenses in hostels (in the CEEs program) with an extra amount for private students in the CEEs and AIOU, to encourage their participation. (Inservice teachers already receive their usual salary). The recipients of the allowances should agree to serve for two years in a remote area.

Cost (year 1): Rs.5,100,000 (\$255,000) based on the following yearly (10 months) amounts: 600 CCE, PTC, and CT hostel students at Rs.5,500 each or Rs.3,300,000 total; 400 CEE, PTC, and CT day students at Rs.2,000 each or Rs.800,000 total; and 500 AIOW PTC students at Rs.2,000 each or Rs.1,000,000 total.

5.2.5 Commodities Support. Prepare a list of needed commodities with technical specifications to equip resource centers in existing CEEs, new middle schools, and CEEs which have been expanded during fiscal year 1989/1990. Commodities are expected to include needed equipment, materials, vehicles, libraries, and other facilities to permit preservice, inservice, and extension courses to be conducted in these institutions. Lists should be prepared in consultation with the principals of CCEs and with officials of relevant education offices. The Directorate of Education (Female) should also prepare a list of commodities needed to facilitate staff efforts to increase teacher supply to rural areas, including vehicles for this purpose. Procurement should begin as soon as the lists are prepared and approved.

Cost (year 1): Rs.4,000,000 (\$200,000)

5.3 Instruction and Materials. The Textbook Board will produce 2,316,000 primary school textbooks for the 1990 school year. Of these, 1,966,000 will be in Urdu, 120,000 in Pushto, 55,000 in Brahavi, and 175,000 in Baluchi. (These last three are the mother tongue language primers and Grade 1 textbooks only. Grade 2 textbooks will be produced for school year 1991). Of the total 2,316,000 copies to be produced, 1,520,000 (66 percent) will be distributed free to students in rural areas. The remaining will be sold.

The Curriculum Bureau will begin coordinating the research, development, evaluation, and training activities of the UNICEF Primary Curriculum Reform Project (PCRP). The Bureau also plans to prepare for the responsibility of conducting research and evaluation of the other donor-supported curriculum/instruction and teacher training projects. These will be designed to provide scientific empirical data on their effectiveness and costs, enabling decisions to be made about whether to adopt, adapt, or reject their products.

The three first year activities related to instruction and materials are described below.

5.3.1 Activity One: Curriculum Review. In coordination with the Curriculum Wing, develop a plan for an extensive review of existing curricula and an analytical review of the mathematics curriculum for Grades 1-2, to coordinate the learning objectives, concepts to be taught, skills to be developed, and knowledge learned with those in the Integrated Curriculum under development in the UNICEF PCRP.

Cost (year 1): Rs.100,000 (\$5,000)

5.3.2 Activity Two: Textbooks Review and Revision. Develop a plan and begin the review of textbooks in use for possible revision.

Cost (year 1): Rs.60,000 (\$3,000)

5.3.3 Activity Three: Teacher Guides Review and Revision. Develop a coordinated plan between the Textbook Board and the proposed Research and Development Cell of the Curriculum Bureau for the design and conduct of a field trial of the draft annotated editions of textbooks for teacher use to be produced by the NWFP Textbook Board (Urdu Grades 1-5).

Cost (year-1): Rs.100,000 (\$5,000) - includes travel and other allowances for staff of the Bureau and Board to visit NWFP.

5.3.4 Materials Support. Two materials support activities are planned, as described below.

5.3.4.1 Supplementary Reading and Other Learning Materials. Begin planning within the Curriculum Bureau in coordination with the Textbook Board and others to develop and supply a

comprehensive list of supplementary reading and learning materials for primary schools, to include such items as children's books, supplementary science and mathematics learning materials, and a children's magazine.

Cost (year 1): Rs.100,000 (\$5,000)

5.3.4.2 Activity Two: Teacher Support Materials. Begin planning with the faculties of the CEEs, the Curriculum Bureau, and the Textbook Board for a list of additional teacher support and auxiliary print learning materials (such as political and geographic or topographical maps, charts, illustrated diagrams of science processes, alphabet strips, alphabet cards, number cards, number lines, children's dictionaries, atlases, etc.).

Cost (year 1): Rs.100,000 (\$5,000)

5.3.4.3 Activity Three: Instructional Materials Availability and Quality. Begin upgrading textbook quality by upgrading paper and cover stock. Subsidize the difference between the cost of local paper and imported offset print paper for a year's supply of paper and cover stock. Begin a study of other means to upgrade the quality, durability, and increase the efficiency of textbook production, distribution, and availability while keeping textbook prices as constant as possible.

Cost (year 1): Rs.5,925,000 (\$296,250), based on Rs.5,625,000 for offset paper and cover stock subsidy, Rs.300,000 for the study, plus one month technical assistance.

5.3.4.4 Textbook Availability in Mother Tongues. Pay all translation and other pre-publication costs of the new Grade 1 textbooks in Baluchi, Pushto, and Brahavi. Three new books are to be produced for academic year 1990 and nine for 1991.

Cost (year 1): Rs.100,000 (\$5,000)

5.3.5 Commodities Support. There are two commodities support activities planned to strengthen primary level instruction and materials. The first is to prepare separate needs assessments and begin the purchase of curricula materials, textbooks, and other primary school reference, research, and learning materials for the libraries of the Textbook Board and the Bureau of Curriculum. The second is to develop separate lists of the Board's and the Bureau's equipment needs, such as computers, printers, adjustable scanners, software, photocopy machines, vehicles, and similar items, their technical specifications, an acquisition plan, and a schedule for purchasing the equipment.

Cost (year 1): Rs.4,540,000 (\$227,000) - Rs.500,000 each for the materials for the two libraries, Rs.4,000,000 for equipment needs, and Rs.40,000 for assistance in preparing the technical specifications.

5.4 Construction

Under the current program, the province plans the following construction for the year 1989/1990 fiscal year:

- Construction of 50 primary schools
- Construction of quarters for primary school teachers:
 - o Two at Hajizai Bala
 - o One at Killi Habibdad Chamman
- Upgrading of 20 primary schools to middle schools
- Upgrading of two Teacher Training (TT) schools, at Uthal and Panjgur to CEEs
- Construction of one female and one male TT school in Sibi and Loralai, respectively
- Addition of one classroom at five existing CEEs (other than Quetta)
- Addition of six classrooms at the Quetta CEE

In addition, the province plans the following construction to support the new program to improve primary education. The expenditures for the Architect/Engineer services for year one are estimated to be Rs.12,500,000 (\$625,000). Details of these and other construction costs are in Attachment A.

5.4.1 Architect/Engineer Planning. Initiation of planning to use private contractors to design, construct, and equip new primary schools and related structures, based upon mutually agreed upon criteria, to accommodate expanded enrolments; and budgeting and expenditure of funds for the maintenance of existing and new buildings. For site selection will develop mutually agreed upon criteria with A.I.D. for design, construction, and selection of sites for all buildings.

Cost (year 1): \$625,000

5.4.2 Primary Schools. An additional 50 primary schools will be constructed.

Cost (year 1): Rs.16,000,000 (\$800,000).

Expenditures for construction not completed in the first program year will be made in subsequent years.

5.4.3 Additional Classrooms at Shelterless Schools. An additional 50 classrooms will be built at shelterless primary schools in Quetta.

Cost (year 1): Rs.7,500,000 (\$375,000).

5.4.4 Additional Classrooms at Overcrowded Schools. An additional 150 classrooms will be built at overcrowded primary schools.

Cost (year 1): Rs.22,500,000 (\$1,125,000)

5.4.5 Expansion of Quetta CEE. The existing girls CEE at Quetta will be expanded by the addition of classrooms and living quarters for 100 additional students.

Cost (year 1): Rs.30,000,000 (\$1,500,000).

5.4.6 Upgrading of Primary Schools. Twenty primary schools will be upgraded to middle schools.

Cost (year 1): Rs.14,000,000 (\$700,000).

5.4.7 Other Facilities. Miscellaneous facilities will be constructed to support the program.

Cost (year 1): Rs.2,000,000 (\$100,000).

ATTACHMENT A
CONSTRUCTION DETAILS

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1. Construction under Current ADP.

The current provincial Annual Development Programme (ADP), for fiscal year 1989/1990, has the following targets for construction completion by the Directorate of Civil Works (DCW) of the Education Department:

- Construction of schools for 50 shelterless primary schools
- Residences for primary school teachers:
 - o Two at Hajizai Bala
 - o One at Killi Habibdad Chamman
- Upgrading of 20 primary schools to middle schools
- Upgrading of two Teacher Training (TT) schools, at Uthal and Panjgur, to CEEs
- Opening of one female and one male TT school in Sibi and Loralai, respectively
- Addition of one classroom at five existing CEEs (other than Quetta)
- Addition of six classrooms at the Quetta CEE

2. Additional Construction.

In addition to the construction planned under the current ADP, the Education Department also plans to initiate construction of the following facilities during the current year.

- 50 primary schools.
- Additional classrooms (50) at shelterless primary schools in Quetta.
- Additional classrooms (150) at overcrowded primary schools.
- Living quarters and classrooms for 100 additional students at the Quetta CEE.
- Upgradation of 20 primary schools to middle schools.
- Miscellaneous construction to support the primary school program.

3. Construction Management

The Education Department anticipates construction of nearly 1,700 primary and middle schools and about 24 other facilities in Balochistan over the next 10 years, under its current program. Thus, an average of 170 schools will be built each year. This is

a reasonable target given the present capacity of the Pakistani construction industry. The provincial authorities, however, now expect to build as many as 3,150 additional schools over the next ten years under the new program to expand primary education. If this target is not achieved, the provincial government's plan to double primary school enrolments by 1999 will be seriously hampered.

The design, construction supervision, and maintenance of the primary education facilities are presently the responsibility of the recently established DCW of the Education Department. The actual construction, however, is done by private firms. Regarding design, DCW has several typical detailed plans, using Reinforced Cement Concrete framed structures, prepared by private firms such as Lahore-based NESPAK and Quetta-based Unique Associates. Thus, DCW's main present role is procurement and supervision of private construction and maintenance firms. The construction sites are identified by the education officials and DCW evaluates the technical suitability of each site. Construction is done by small local contractors. There is usually a single contract for one or two schools.

DCW is headed by a Director, also called Chief Engineer, who reports to the Secretary Education. DCW's two divisions are each headed by a Divisional Engineer. The Divisional Engineer (North) (DEN) is responsible for the divisions of Sibi, Nsirabad, Loralai, and Quetta (except the Chaghi district). The Divisional Engineer (South) (DES) is responsible for the divisions of Kalat and Makran as well as the Chaghi district of Quetta. The DEN has two Sub-Divisional Officers (SDOs) under him. These SDOs supervise six Sub-Engineers (AEs). Likewise, the DES has three SDOs and six AEs under him.

Over the past several years the province has constructed an average of about 50 schools each year. A major effort will be required to increase the annual targets to almost 200 schools in addition to other facilities required over the next ten years. It is proposed, therefore, that the services of an Architect/Engineer (A/E) firm be procured to help achieve these ambitious targets on time. This firm will help the DCW prepare a plan for construction management. The A/E firm also will help establish the criteria for site selection, design, and construction for all buildings. The firm also will review and recommend improvement in the existing design and construction documents. Wherever required and possible the A/E firm also will assist DCW with supervision of construction and maintenance contracts. DCW also will require a short-term A/E firm to modify the existing drawings and to supervise the construction planned in addition to the AOP. Guidelines for the scope of work of the A/E firm are in the following section.

4. Support Activities.

A. Guidelines for the A/E Firm Scope of Work.

- Develop criteria for the selection of the sites for primary schools.

The guidelines for the population size, number of students in the existing and proposed schools, and distances to the nearest existing schools should be determined by the education professionals. Flexibility should be provided to account for the different geographical, social, and economic characteristics of various regions. Because of the emphasis on female education, priority should be given to sites likely to increase female enrolment.

The criteria for "technical acceptability" for construction purposes should be developed by the A/E firm in consultation with DCW. This will include requirements related to area, topography, soil condition, drainage, and similar characteristics.

- Develop general guidelines for the design and construction of primary schools to ensure a safe, healthy, comfortable, attractive, and stimulating environment for the students and the teachers. The guidelines will take into account environmental and future growth considerations. They will be general enough to permit procurement of construction services on a competitive, design-and-build basis.
- Develop conceptual/preliminary designs including a plan for the typical primary school. The plan will reflect the space requirements determined by the A/E firm based on the number of students per classroom given by the education professionals.
- After agreement with DCW on designs for final development, prepare detailed drawings, technical specifications, and cost estimates for each approved design.
- Prepare standard tender documents for securing construction contracts to include small local contracts (single structure), large contracts for conventional construction at multiple sites, and large contracts for prefabricated structures (if deemed suitable).
- For mapping of the existing schools, assist DCW with the preparation of a questionnaire for the survey research teams to gather information for planning and tracking site selection and construction of the new schools and maintenance of the existing schools.
- Make site investigations and prepare detailed drawings, technical specifications, cost estimates, and tender documents for securing construction contracts for:
 - o Three CEEs (one for girls, two for boys)
 - o Additions to six existing CEEs
 - o Six education extension centres adjacent to existing CEEs
 - o One Textbook Board office

- o Five hostels for female primary teachers
 - o Three warehouses for book storage
- In coordination with DCW:
- o Prepare and maintain a tendering and construction schedule
 - o Evaluate bids received for construction of facilities cited above
 - o Prepare a field construction management plan including staffing and transportation requirements of the A/E firm and DCW
 - o Provide resident engineers, assistant engineers, and inspectors to organize, direct, and supplement monitoring/inspection personnel of DCW.

DCW may choose to hire one firm for the design and planning work and another firm for monitoring and supervising construction.

B. Tentative first year schedule for A/E services.

(i) Procurement:

Develop Scope of Work.....	October 31, 1989
Prepare Request for Proposal (RFP).....	November 31, 1989
Invite/receive/evaluate proposals and award contract.....	February 28, 1990

(ii) Performance:

Develop site selection criteria.....	May 31, 1990
Prepare input for the mapping survey.....	May 31, 1990
Prepare design and construction guidelines.....	May 31, 1990

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5. Budget.

The province will have to allocate funds in addition to the current ADP to finance the procurement of additional construction and A/E services during the current (1989/1990) fiscal year. An estimate of the additional funds required is given below.

<u>A/E Services</u>	Rs.12.50 million
<u>Additional Construction</u>	
- 50 primary schools.....	16.00
- 50 additional classrooms at shelterless primary schools in Quetta.....	7.50
- 150 additional classrooms at overcrowded primary schools.....	22.50
- Expansion of Quetta CEE.....	30.00
- Upgrading of 20 primary schools..	14.00
- Other facilities.....	2.00

<u>TOTAL</u>	Rs.104.00 million

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