

RRP:KAZ 28429

# **ASIAN DEVELOPMENT BANK**

**REPORT AND RECOMMENDATION  
OF THE  
PRESIDENT  
TO THE  
BOARD OF DIRECTORS  
ON A  
PROPOSED LOAN  
TO THE  
REPUBLIC OF KAZAKHSTAN  
FOR THE  
EDUCATIONAL REHABILITATION AND  
MANAGEMENT IMPROVEMENT PROJECT**

**November 1995**

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## LOAN AND PROJECT SUMMARY

<b>Borrower</b>	:	Republic of Kazakhstan
<b>Project Description</b>	:	<p>The Project will provide the Government with urgently needed support for rehabilitating and strengthening the education system in line with the needs of the economic transition. The Project will provide key comprehensive schools (which offer primary and secondary education) throughout the country with priority equipment, textbooks, and instructional materials to meet immediate needs. It will also improve management and staff development in the Ministry of Education (MOE) and the education system. The Project will establish a computerized educational management information system (MIS), and strengthen one national and five provincial (<i>oblast</i>) Teacher Improvement Institutes (TIIs). The Project will also develop staff training programs, support the development of a new, learner-based curriculum, and lay the foundation for broader educational reform.</p>
<b>Classification</b>	:	<p>Human Development Environmental Classification - C</p>
<b>Rationale</b>	:	<p>Human development, including the rehabilitation and reform of general education, is crucial to Kazakhstan's successful transition to a market economy. Financial constraints in the education sector have led to major shortages of educational equipment, textbooks, and instructional materials, and have severely eroded the quality of education in Kazakhstan. It is important to prevent further decline through providing schools with priority equipment, textbooks, and instructional materials. Management systems and staff and teacher training capabilities need strengthening as a matter of priority, and as a prerequisite for broader reforms.</p>
<b>Objectives and Scope</b>	:	<p>The objectives of the Project are to stem the decline in the quality of primary and secondary education and to strengthen the education system in line with the needs of the economic transition. The Project will: (i) meet urgent needs for equipment, textbooks, and instructional materials; and (ii) strengthen educational management and staff development in MOE and the education system.</p> <p>The Project components are the following:</p> <ul style="list-style-type: none"> <li>(i) provision of urgently needed equipment for 180 priority comprehensive schools throughout the country;</li> </ul>

- (ii) supply of approximately one million textbooks to meet basic educational needs, to support the introduction of a new, learner-based curriculum, and to contribute to the development of a private textbook publishing industry;
- (iii) establishment of a computerized MIS in MOE and 21 *oblast*-level Departments of Education (DOE) throughout the country, to provide key management data on the sector as a basis for broader reforms; and
- (iv) strengthening of staff development, including upgrading of one national and five *oblast* TILs, in-country training for about 1,070 teachers and staff and external training programs for about 17 staff.

**Cost Estimates** : The total cost of the Project, including taxes and duties and interest and other charges during implementation, is estimated at \$29.4 million equivalent, of which \$16.1 million equivalent (55 percent) is the foreign exchange cost and \$13.3 million equivalent (45 percent) is the local currency cost.

**Financing Plan** : (\$ million)

Source	Foreign Exchange	Local Currency	Total	Percent
Bank	16.1	3.9	20.0	68
Government	0.0	9.4	9.4	32
Total	16.1	13.3	29.4	100

**Loan Amount and Terms** : A loan, in an amount equivalent to \$20.0 million, from the Bank's Special Funds resources, is proposed. The loan will have a repayment period of 35 years with a grace period of 10 years, and will carry a service charge of 1 percent per year.

**Period of Utilization** : Until 30 June 2001

**Executing Agency** : Ministry of Education

**Implementation Arrangements** : The Project will be managed by a Project Implementation Unit within MOE, assisted by DOEs at the *oblast* level. A Project Working Group will provide general implementation and

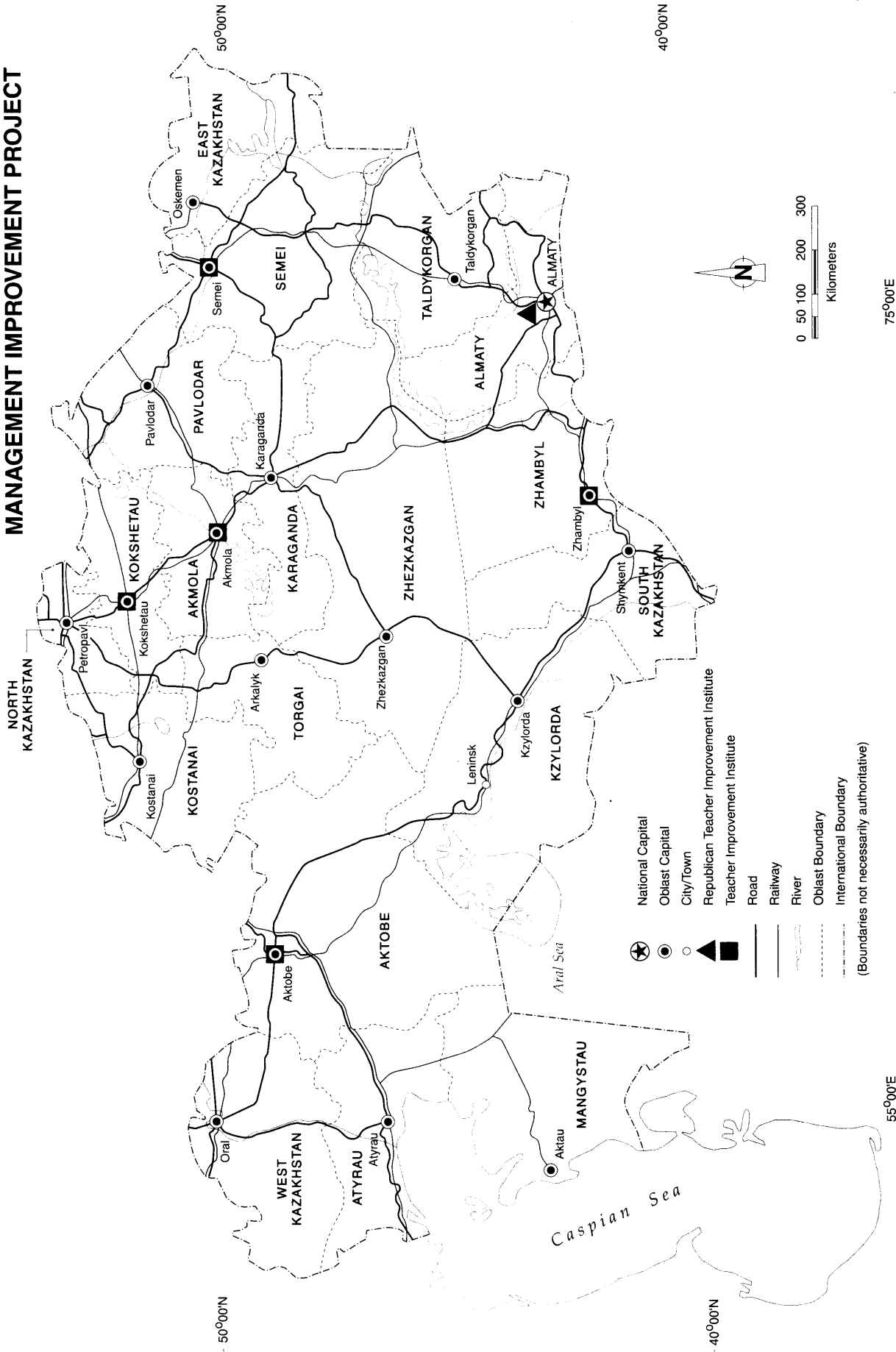
management guidance within MOE. A Project Steering Committee will provide policy guidance and intersectoral coordination.

- Procurement** : All procurement to be financed from the proceeds of the loan will be carried out in accordance with the Bank's *Guidelines for Procurement*.
- Consulting Services** : The Project will require a total of 104 person-months of specialist services: 82 domestic and 22 international. All international consultants will be selected and engaged in accordance with the Bank's *Guidelines on the Use of Consultants*. The domestic consultants will be recruited by the Government in accordance with competitive selection arrangements acceptable to the Bank.
- Estimated Project Completion Date** : 31 December 2000
- Project Benefits and Beneficiaries** : The Project will stem the decline in the quality of primary and secondary education and strengthen the education system in line with the needs of the economic transition. The Project will enhance the internal and external efficiency of comprehensive schools (which provide primary and secondary education), in particular their ability to produce high-quality graduates for technical and vocational education, higher education, and the labor market. The Project will assist MOE to strengthen the managerial efficiency of the education system, and its capability for staff and teacher training. It will support the development of a private textbook publishing industry. The immediate beneficiaries of the Project will be about 146,000 pupils enrolled each year in the 180 schools supported by the Project. Other beneficiaries include about 11,600 teachers in schools supported by the Project, about 840 MOE and DOE staff and teacher trainers, and about 1,087 teachers and staff to be trained under the Project.

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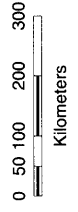
# KAZAKHSTAN EDUCATIONAL REHABILITATION AND MANAGEMENT IMPROVEMENT PROJECT



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## I. THE PROPOSAL

1. I submit for your approval the following Report and Recommendation on a proposed loan to the Republic of Kazakhstan for the Educational Rehabilitation and Management Improvement Project.

## II. INTRODUCTION

2. During the Bank's first Country Programming Mission to Kazakhstan in October 1994, the Government requested the Bank to provide technical assistance (TA) to prepare an education sector project. The Country Programming Mission examined the education and training sector, and defined and reached an understanding with the Government on the objectives and scope of a TA program.

3. In view of the urgent needs confronting the education sector, a two-tiered approach was adopted by the Bank to meet the Government's needs in the sector. An initial project will address immediate needs in rehabilitating the education system, strengthen management and staff development, and take initial steps to meet new manpower needs. In parallel, the Bank will help to formulate a strategic sector study that will review key issues in the sector and provide a detailed agenda for reform in the medium and longer term.

4. In the context of this approach, a small-scale project preparatory TA<sup>1</sup> was approved in December 1994, and consultants were fielded to work with the Ministry of Education (MOE) to prepare the Educational Rehabilitation and Management Improvement Project. The TA was implemented in February-March 1995 and the consultants' report was submitted to MOE in April 1995. A TA for an education and training sector study<sup>2</sup> was approved in March 1995. A Loan Fact-finding Mission visited Kazakhstan in May 1995 and reached preliminary understanding with the Government on various aspects of the Project.

5. An Appraisal Mission<sup>3</sup> visited Kazakhstan from 3 to 22 July 1995 to review and finalize technical, financial, institutional, and social aspects of the Project. This report is based on the consultants' report, the Mission's findings, and discussions with Central Government, provincial (*oblast*), and district (*raion*) officials, and teachers, administrative staff, and students of the institutions covered by the Project.

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<sup>1</sup> TA No. 2215-KAZ: *Educational Rehabilitation and Management Improvement*, for \$100,000, approved on 1 December 1994.

<sup>2</sup> TA No. 2308-KAZ: *Education and Training Sector Study*, for \$895,000, approved on 7 March 1995.

<sup>3</sup> The Mission comprised R. Wihtol (Project Economist/Mission Leader); B. Adler (Senior Project Specialist); I. Matsumoto (Education Specialist); G. Atay (Counsel); A. Bauer (Economist); and S. Tate (Educational Development Expert/Staff Consultant). The Mission was assisted by A. Nachor (Education Equipment Expert), who was engaged under TA No. 2215-KAZ.

### III. BACKGROUND

#### A. Subsector Description

##### 1. Structure and Organization

6. The education sector in Kazakhstan is the responsibility of MOE and is administered through a network of Departments of Education (DOE) in the country's 19 *oblasts* and two major cities (Almaty and Leninsk), and Education Officers at the *raion* level. MOE is responsible for general, technical, vocational, and higher education, while a number of specialized technical schools and higher level institutions come under other ministries. The Ministry of Labor (MOL) is responsible for nonformal skill training. A description of the education system and organizational chart of MOE are in Appendixes 1 and 2.

7. In the public sector, the Republican budget finances MOE, universities and other higher education, and special education. Local budgets allocated to the *oblasts* finance primary and secondary, and technical and vocational education (TVE). The total 1995 public sector education budget is T36.0 billion (\$581 million), of which the Republican budget is T9.4 billion (\$152 million) and total *oblast* budgets are T26.6 billion (\$429 million). Of the *oblast* budgets, T16.7 billion (\$269 million) or 63 percent is for salaries and T9.9 billion (\$160 million) or 37 percent is for other costs including textbooks, equipment and operation and maintenance. Private schools and educational institutions are licensed by MOE and must meet MOE curricular standards. Since independence, a small private education sector has emerged, mainly at the higher level in such fields as law, economics, accounting, and foreign languages.

8. The formal education system in Kazakhstan has a 4-5-2 pattern, consisting of four years of primary, five years of lower secondary, and two years of upper secondary education. Age at entry is six to seven years. General education is compulsory up to grade eleven, with a reported lower secondary enrollment ratio<sup>1</sup> of virtually 100 percent. After completing lower secondary education, pupils can go on to upper secondary general education or enroll in vocational education at the upper secondary or postsecondary level. General secondary schools offer a foundation for further education at the postsecondary or higher level, while vocational schools offer a combination of general education and vocational and technical skills and prepare graduates directly for employment.

9. About 8,380 schools throughout the country provide primary and secondary education. Approximately 1,690 schools offer only primary education, while the remaining 6,690 comprehensive schools offer all three levels. Education is for 26, 30, and 35 hours per week, respectively, at the primary, lower secondary, and upper secondary levels. Owing to a shortage of classrooms and facilities, the schools operate in two shifts, one in the morning and the other in the afternoon.

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<sup>1</sup> The number of students enrolled on a full-time basis at a particular level as a percentage of the corresponding school-age population.



10. The language of instruction varies. In 1995, it was Kazakh in approximately 3,300 schools, Russian in 2,510 schools, and mixed in 2,470 schools, with the language of instruction depending on the mother tongue of the pupils. In addition, 97 schools provide education in the languages of different ethnic groups: 72 in Uzbek, 17 in Uigur, 4 in Turkish, 3 in Tajik and 1 in German. Women's participation in education is summarized in Appendix 3. Female pupils/students account for over half of enrollments at virtually all levels of education. In 1994, total enrollment in general education was 3.1 million (50.1 percent female).

11. In general, teachers in Kazakhstan are relatively well educated and trained. In-service training of teachers is carried out by the Republican Teacher Improvement Institute (RTII) at the national level and a network of 20 Teacher Improvement Institutes (TII) covering 19 *oblasts* and Almaty. In 1994, the general education system employed 270,000 teachers (79.9 percent female), giving an overall teacher-student ratio of 1:11.

## **2. The Impact of Economic Transition**

12. After independence in 1991, Kazakhstan adopted and began to implement a program of macroeconomic stabilization and structural reform aimed at moving the country toward a market economy. Major steps have been taken in such areas as price liberalization, reducing disincentives to exports, lowering budgetary subsidies, privatization, and encouraging foreign investment. However, the country continues to face serious economic and fiscal imbalances. Since independence, gross domestic product (GDP) has declined by about 53 percent. Concurrently, the incidence of poverty has increased. Many state enterprises face either closure or extensive labor shedding.

13. Economic transition has had major implications for the country's education system. Public education sector expenditure as a proportion of GDP declined from 6.8 percent in 1990 to 2.9 percent of a much smaller aggregate in 1994. Resource constraints and cutbacks in public spending have led to a severe deterioration of educational facilities and equipment, and to attrition of qualified teachers and staff. Rapid changes in the labor market and technology are placing new demands on the system, and human development is considered crucial to the country's successful transition from a centrally planned to a market-based economy.

14. The education sector has both strengths and weaknesses. Under the former Soviet regime, Kazakhstan had a well-established education system that provided extensive preschool facilities, mainly in connection with state enterprises, and state and collective farms; nearly universal access to primary and secondary education; TVE in line with the needs of state enterprises, and state and collective farms; and higher education of a relatively high standard. The system was fully financed through the Government budget, no education fees were levied, and consequently literacy was virtually universal.

15. Since independence, Kazakhstan's economic and fiscal crisis and the process of economic transition have led to severe cutbacks in educational finance and placed numerous new demands on the education system. Enterprise failure has led many preschools to shut down. Owing mainly to budgetary constraints, funds for recurrent costs have been inadequate, and there has been little investment in the sector. Teachers' salaries are very low, their payment is often delayed, and many qualified teachers have resigned.

16. There has been virtually no new construction and little maintenance of educational facilities and equipment. Resources are scarce for the import of textbooks, while a viable domestic textbook production capacity has been slow to develop (see para. 26). Some schools have closed; many are in a state of disrepair; and most lack essential equipment, textbooks, and instructional materials. The relatively high quality of education achieved prior to independence is being rapidly eroded.

17. Because of both resource constraints and structural rigidity, the educational system has had considerable difficulty responding to the demands posed by economic transition and the emerging private sector. There is need to (i) revise the general education curriculum to make it more flexible and responsive to learner needs in the context of economic transition, (ii) incorporate the Kazakh language and culture in education, (iii) modernize and diversify the foreign language curriculum, (iv) modernize computer education, (v) make TVE more responsive to the restructuring of the productive sectors in line with the emerging market economy, and (vi) develop new textbooks and instructional materials in line with these needs. Private schools and institutions are emerging, and the quality and appropriateness of their programs need to be ensured.

18. The labor market in Kazakhstan has undergone major changes since independence. Total employment has contracted from 7.56 million in 1990 to 6.73 million in 1994. During the same period, state employment declined from 90 to 66 percent of the total. While nearly 2.2 million jobs disappeared in state enterprises and organizations, over 1.0 million private sector jobs were created, although many of them are part-time. Many jobs were lost in industry, construction, and transport; agricultural employment has declined less. Sectoral employment data suggest that the medium term will see a continuing marginal decline in agricultural occupations, a more significant decline in industrial occupations, and a substantial increase in services sector occupations. In addition to an expansion of the services sector, which is already evident, competitive light industries may emerge because of currently relatively low labor costs.

19. New private sector employment opportunities have emerged mainly in trade and services. With the more open climate for foreign investment, there is a growing demand for skills in languages, computers, and general office, secretarial, and accountancy services. The trade sector has grown significantly, banking and insurance are likely to expand, and so is the hotel and tourism sector. These developments will place specific skill demands on the labor market. They will also require a general education system with a flexible curriculum and the capacity to provide pupils with a strong foundation in mathematics, foreign languages, and computers.

### **3. Issues in the Subsector**

20. The education sector is confronting both short-term and longer term problems. In the short term, there is an urgent need for (i) equipment, instructional materials, and textbooks, both to stem the decline in the quality of education and to respond to the new educational needs of economic reform and technological change; and (ii) measures to improve educational management and staff development in the education system, to provide a foundation for broader reforms. The issues requiring most urgent attention are summarized below.

- (i) At the school level, the most pressing need is for basic classroom equipment and instructional materials. Schools at all levels are poorly equipped to meet the educational needs of economic transition. In comprehensive schools, language laboratory, science laboratory, and computer classroom equipment is outdated or entirely lacking. A top priority is to rehabilitate the schools to a level where they can resume carrying out their basic tasks.
- (ii) Textbooks and instructional materials are in short supply, which poses a serious threat to the overall quality of education. The shortage of textbooks is due both to financial constraints and to the weakness of the domestic textbook publishing industry. With the introduction of a new curriculum and efforts to incorporate Kazakh culture into education, new textbooks are being developed in both Kazakh and Russian. There is an urgent need to provide priority textbooks to schools throughout the country, and to promote the development of a domestic capacity to develop, publish, and print textbooks.
- (iii) Management systems in the education sector are poorly developed in relation to needs. Management information in MOE is limited in scope, fragmented, and largely gathered and processed manually. Lack of vital management information is a constraint on the effective management of costs and revenues, staff and other resources, and student flows. Modernizing management is a prerequisite for the development of policies and strategies for the efficient use of resources in the sector. A modern educational management information system (MIS) is essential as a source of reliable data on which to base broader education sector reform.
- (iv) Staff development systems for teachers and educational administrators require review and development. Management and staff training programs have stagnated for several years, and exposure to policies and approaches adopted in other countries has been limited. Staff development institutes lack equipment and need to expand and diversify their programs to meet training needs related to economic transition. Proposed curriculum changes will require extensive training of teachers and staff.

21. In principle, primary and secondary education are fully financed from the Government budget. As a result of cutbacks in the education sector budget allocations, informal arrangements such as direct community support for the operation and maintenance of schools have emerged. The present situation makes it difficult to calculate the precise cost of, and level of subsidy to education. The comprehensive educational MIS will capture detailed data on costs and revenues as a basis for future review.

22. Under the Soviet education system, TVE was closely linked to state enterprises and industries. Many of these enterprises are restructuring, shedding labor or even closing down. As a result, TVE enrollments are falling sharply and the organizational and policy framework for

TVE is likely to require substantial revision. Owing to the urgent need to strengthen and initiate reform in general education, as a prerequisite to reform in other subsectors of education including TVE, it was agreed that priority should be given to comprehensive schools (which provide both primary and secondary education) rather than to TVE.

23. To guide the medium-term and long-term development of the education and training sector, there is also a need for a comprehensive strategic reform agenda. In the context of the two-tiered approach adopted by the Bank in the education sector (see paras. 3 and 32), the Bank has approved a TA to support the preparation of an education and training sector study. The study will review the organization, management, and finance of the sector as well as the needed reform policies for basic education, TVE, and higher education. After a review of key issues, the study will prepare a detailed and prioritized agenda for reform in the medium and longer term. The roles of the Government, of institutions at all levels, and of the private sector need to be clarified. Institutional strengthening of MOE and other Government agencies is required to ensure successful educational reform. It is also important for the Government to rationalize expenditures in the education sector by improving internal efficiency and developing new approaches to educational finance.

## **B. Government Policies and Plans**

24. The Government has taken some steps to reform the education system. In 1992, a new education law was enacted. It sets out the objective, general principles, structure, and organizational framework of the education sector. The law establishes MOE as the central state body responsible for education, including making educational policy and setting national guidelines and standards. In 1993, a new higher education law was enacted, and further legislative amendments are being proposed. MOE is actively reviewing different aspects of the education system including the general education curriculum, the organization of TVE, textbook development and production, and existing management information systems.

25. At the center of the Government's educational reforms is the development of a new curriculum for general education that places greater emphasis on individual learner needs. The present curriculum, which was carried over from the Soviet system, is relatively standardized, with a strong emphasis on rote learning. The new curriculum will provide a core of basic knowledge, complemented by additional learning based on the needs and interests of the pupils. The learner-based curriculum is being developed and will be introduced in stages starting at the primary level in 1997. It will entail substantial changes in teaching methodology and such areas as foreign language, social science, and computer education. The Institute of Educational Problems (IEP) in MOE has prepared the framework for the new curriculum at the primary level, and textbooks and related teachers' aids are being developed by groups of authors in both Kazakh and Russian.

26. The Government also gives priority to domestic publishing and production of textbooks and instructional materials. Prior to independence, approximately 80 percent of all textbooks used in Kazakhstan were produced in the former Soviet Union. Kazakhstan continues to import Russian-language textbooks, but is already in arrears for these imports. Domestic production of textbooks in both Kazakh and Russian, mainly by state publishing houses and printers, has increased from approximately 8.4 million copies in 1991 to 13.9 million copies in

1994, which is insufficient to meet the shortfall caused by declining imports. While a small private publishing sector has emerged, the private publishing of textbooks has been constrained by the limited availability of printing facilities and the fact that MOE continues to place orders mainly with state publishing houses.

27. The Government is exploring other issues, including the scope for cost recovery in the provision of textbooks. At the school level, a number of positive measures have been taken, including establishing new optional courses with limited cost recovery in some secondary schools, diversifying the curriculum, and developing production units in many vocational schools. However, financial constraints and MOE's lack of familiarity with some of the issues have restricted the nature and pace of these reforms.

### **C. External Assistance to the Sector**

28. Human resource development is receiving external assistance from various bilateral and multilateral sources. The World Bank, under its Social Protection Project, is strengthening employment services under MOL and providing support for the organized transfer of the social assets of state enterprises, including enterprise-owned preschools. The European Union (EU) is providing TA to support the Kazakhstan Institute of Management and Economics, the State Academy of Management, and a training program for young entrepreneurs.

29. MOE is receiving TA from EU in higher education reform. The United Nations Children's Fund (UNICEF) is supporting primary education in the context of an integrated social development project in Kzylorda *oblast*. The German Government is providing assistance for the establishment of model facilities for new trades in three vocational schools. Various bilateral donors and nongovernment organizations are implementing overseas scholarship and fellowship programs and supporting the development of new textbooks. However, the external assistance to the MOE lacks a cohesive or coordinated policy framework.

### **D. Lessons Learned**

30. The Bank has approved one loan to Kazakhstan in December 1994.<sup>1</sup> The Government has limited experience in project implementation, is unfamiliar with procurement procedures, and its structure for coordinating and implementing externally financed activities is untested. The experience gained from the lending program so far is very limited. The experience of other funding agencies, including the World Bank, indicates the need to anticipate problems with procurement and provide support during Project implementation. The Project is the Bank's first project loan to Kazakhstan and will therefore require close supervision. Implementation arrangements will require regular review by the Government and the Bank in the course of Project implementation.

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<sup>1</sup> Loan No. 1337-KAZ: *Special Assistance*, for \$40.0 million, approved on 6 December 1994.

## **E. The Bank's Sectoral Strategy**

31. The Bank's operational strategy in Kazakhstan aims to facilitate the transition to a market economy. In the near term, this objective will entail (i) support for macroeconomic and sectoral policy reforms, in close coordination with the World Bank and International Monetary Fund (IMF); (ii) institutional strengthening and human development; and (iii) support for selected infrastructure projects, consistent with economic and fiscal developments. An overriding short-term concern is an easing of the fiscal crisis and foreign exchange constraints through quick-disbursing program lending in support of sector reform and capacity building to revive production and limit the impact of rapidly deteriorating living standards.

32. The Bank has adopted a two-tiered approach to meet the Government's needs in the education and training sector. The Project will address urgent needs in rehabilitating the education system, strengthen educational management and staff development, and take initial steps to meet new manpower needs arising from the economic transition. In parallel, a Bank TA will help to formulate a strategic plan for the sector as a basis for future program and project development and to set the stage for longer term strategic intervention. The sector study will focus on major policy issues, including educational organization and finance.

## **F. Policy Dialogue**

33. During the processing of the Project, issues related to the policies, organization, and reform of the education sector were discussed with the Government. It was agreed that the framework for a longer term policy dialogue between the Government and the Bank will be set by the advisory TA study referred to in para. 23. The Project will assist in establishing the foundation for key policy reforms, in particular through

- (i) external training to familiarize key officials with aspects of the organization and management of education in other countries;
- (ii) establishment in MOE and the *oblast* DOEs of a computerized educational MIS, which will provide data in an analytical form on key aspects of the education system, a prerequisite for the planning and effective implementation of broader policy reforms;
- (iii) strengthening the staff and teacher development capabilities of the education system, a key element in the implementation of policy reforms; and
- (iv) support for the introduction of the new learner-based curriculum, now being developed by the Government under severe resource constraints.

## IV. THE PROJECT

34. The Project will provide the Government with urgently needed support for rehabilitating and strengthening the education system in line with the needs of the economic transition. The Project will provide 180 key comprehensive schools (which offer primary and secondary education) throughout the country with priority equipment, textbooks, and instructional materials to meet immediate needs. It will also improve management and staff development within MOE and the education system. The Project will establish a computerized educational MIS, and strengthen the RTII and five *oblast*-level TIIs. The Project will also develop staff training programs, support the development of a new learner-based curriculum, and lay the foundations for broader educational reform.

### A. Rationale

35. Human development, including the rehabilitation and reform of general education, is crucial to Kazakhstan's successful transition to a market economy. Financial constraints in the education sector have led to major shortages of educational equipment, textbooks, and instructional materials, and have severely eroded the quality of education in Kazakhstan. It is important to prevent further decline through providing schools with priority equipment, textbooks, and instructional materials. Management systems and staff and teacher training capabilities need strengthening as a matter of priority, and as a prerequisite for broader reforms.

### B. Objectives and Scope

36. The objectives of the Project are to stem the decline in the quality of primary and secondary education and to strengthen the education system in line with the needs of the economic transition. The Project has two immediate objectives: (i) meet urgent needs for equipment, textbooks, and instructional materials; and (ii) strengthen educational management and staff development in MOE and the education system. The Project framework is in Appendix 4.

#### 1. Project Components

37. The Project will focus on providing educational equipment to selected schools nationwide, and on strengthening management and staff development in MOE. The Project consists of four components, which are briefly described in this section. A detailed description is in Appendix 5.

##### a. Provision of Urgently Needed Equipment to Priority Schools

38. The Project will provide 180 comprehensive schools with urgently needed equipment. All the schools offer general education at the primary and lower secondary levels, and most also at the upper secondary level.

39. Schools were identified from each of the country's 19 *oblasts* and Almaty and Leninsk, from areas of economic potential and disadvantaged areas. The selection criteria included the schools' performance record, managerial capability, and demonstrated ability to

respond to change. Consideration was given to achieving a reasonable balance among the country's *oblasts*, among ethnic groups, and between rural and urban areas. To increase the number of pupils benefiting from the Project, many of the schools selected have higher-than-average enrollments. Coverage is relatively even for the country's major ethnic groups: 79 schools provide instruction in Kazakh, 59 in Russian, 40 in both Kazakh and Russian, 1 in Uzbek, and 1 in both Uzbek and Tajik. The list of schools is in Appendix 6.

40. The equipment will meet the most immediate needs of the schools, and will strengthen their capability both to carry out their basic educational task and to respond to new needs, particularly in language and computer education. The equipment has been grouped into two basic packages. The first package includes general educational equipment (audiovisual, language laboratory, physics and chemistry laboratory, basic carpentry and metalwork equipment, and instructional aids). The second package has equipment for a modern computer classroom with 15 workstations. All 180 schools will be provided with the general educational equipment package. The computer education equipment will go to 90 of the schools, located mainly in urban areas where computer skills will have more direct relevance to job and further education opportunities, and where technical backup and support for the equipment is readily available.

#### **b. Textbook Provision**

41. The Project will provide for the purchase of approximately one million textbooks and related instructional materials to (i) meet basic educational needs, and (ii) support the development of a new learner-based curriculum. The Project will provide additional copies of existing textbooks and new textbooks developed to support the curriculum change. To the extent possible within the national context, the Project will finance textbook production by private publishers, thus supporting the development of a private textbook industry. The Project will also provide desktop publishing equipment for IEP to facilitate the preparation of camera-ready proofs, and funds for contracts with authors to develop textbooks for the new curriculum and other educational changes, in particular language and computer education.

#### **c. Establishment of a Computerized Educational MIS**

42. The Project will establish a computerized MIS in MOE and the 21 DOEs at the *oblast* level and in Almaty and Leninsk to provide ready access to and analysis of key management data on finance, facilities and equipment, teachers and staff, student enrollment and progression. The MIS will also permit monitoring and evaluation of educational benefits. Provision will be made for the purchase of hardware, software, and supplies, and for recruitment of consultants to develop the MIS framework and software. The component is a prerequisite to the modernization of educational management and the effective planning of broader educational reform.

#### **d. Strengthening Staff Development**

43. The Project will upgrade the training equipment and instructional materials production capabilities of RTII in Almaty and five TIIs throughout the country. The Project will provide in-country training for approximately 950 principals and teachers in new approaches to educational management, the new learner-based curriculum, language studies, computer studies



and teacher training. Training on the computerized MIS will be given to about 120 staff from MOE and *oblast* DOEs. The Project will also provide external training for about 17 senior MOE staff and instructors from RTII in comparative education systems, educational management, project management and modern instruction methods.

## **2. Project Inputs**

44. The Project inputs consist of (i) equipment and furniture, (ii) textbooks and instructional materials, (iii) staff development, and (iv) consultant services. Equipment and furniture will be provided for RTII and five TIIs, computers and related equipment for MIS for MOE and DOEs at the *oblast* level and in Almaty and Leninsk, desktop publishing equipment for IEP, and priority equipment for 180 comprehensive schools. Textbooks and instructional materials to be procured will include approximately one million textbooks and the contracts with authors for the development of new textbooks and related materials for teachers. The equipment lists and procurement arrangements are in Appendix 7.

45. Staff development includes in-country and external training programs (see Appendix 8). Consulting services include international and domestic consultants for Project implementation, equipment procurement, MIS development, and staff training. The list of consultants and outline terms of reference are in Appendix 9.

## **C. Cost Estimates**

46. The total cost of the Project, including taxes, duties, interest, and other charges during implementation (IDC), is estimated at \$29.4 million equivalent, of which \$16.1 million equivalent (55 percent) is the foreign exchange cost and \$13.3 million equivalent (45 percent) the local currency cost. The foreign exchange cost includes \$0.7 million for IDC. A summary of cost estimates is in Table 1; more detailed cost estimates are in Appendix 10.

**Table 1: Cost Estimates**  
(\$'000)

Category	Foreign Exchange	Local Currency	Total
<b>A. Base Costs</b>			
1. Staff Development	300	288	588
2. Textbooks and Instructional Materials	1,200	1,400	2,600
3. Consulting Services	440	79	519
4. Equipment and Furniture	11,589	2,993	14,582
5. Implementation	0	4,050	4,050
6. Taxes and Duties	<u>0</u>	<u>3,072</u>	<u>3,072</u>
<b>Subtotal (A)</b>	13,529	11,882	25,411
<b>B. Contingencies</b>			
1. Physical Contingencies	1,263	870	2,133
2. Price Escalation	<u>604</u>	<u>597</u>	<u>1,201</u>
<b>Subtotal (B)</b>	1,867	1,467	3,334
<b>C. Interest and Other Charges</b>	663	0	663
<b>Total (A+B+C)</b>	16,059	13,349	29,408
Percent	54.6	45.4	100.0

#### **D. Financing Plan**

47. It is proposed that the Bank provide a loan of \$20.0 million equivalent from its Special Funds resources, to cover all the foreign exchange costs of \$16.1 million, including the service charge on the Bank loan, and a portion of the local currency costs amounting to \$3.9 million. The Government will provide the balance of local currency costs amounting to \$9.4 million, including taxes and duties. The proposed loan will have a repayment period of 35 years with a grace period of 10 years, and will carry a service charge of 1 percent per year. The borrower will be the Republic of Kazakhstan. The financing arrangements are summarized in Table 2; a more detailed financing plan is in Appendix 11.

**Table 2: Financing Plan**  
(\$ million)

<b>Source</b>	<b>Foreign Exchange</b>	<b>Local Currency</b>	<b>Total</b>	<b>Percent</b>
The Bank	16.1	3.9	20.0	68
The Government	0.0	9.4	9.4	32
<b>Total</b>	<b>16.1</b>	<b>13.3</b>	<b>29.4</b>	<b>100</b>

48. The proposed loan will cover 68 percent of the total Project cost, which is above the standard limit of 60 percent for Group B countries. This is consistent with the Board of Directors' decision (6 October 1994) to classify Kazakhstan as a Group B country with limited eligibility for ADF resources, and to provide, on a temporary basis, up to 80 percent project cost financing. The decision was made in view of the major economic difficulties being experienced by the country, including a severe economic contraction, substantial balance of payment difficulties, and a continued fiscal crisis that reduces the Government's ability to sustain required levels of current and development expenditures.

#### **E. Implementation Arrangements**

##### **1. Executing Agency**

49. MOE will be the Executing Agency for the Project.

##### **2. Project Implementation Unit**

50. The Government will establish a Project Implementation Unit (PIU) in MOE to handle the day-to-day management of all Project activities. PIU will be headed by a full-time Project manager who will be assisted by at least two additional staff members to handle the implementation of Project activities, in particular equipment procurement and staff development.

51. The Project will provide support to PIU, including computers, office equipment and a vehicle, an international consultant to advise and assist in Project implementation and equipment procurement (see para. 58), and domestic consultants to provide assistance in procurement. The Bank will share the incremental recurrent costs for PIU on a declining basis, starting at 100 percent the first year and decreasing by 20 percent in each succeeding year.

##### **3. Project Working Group**

52. PIU will work under the general guidance of a Project Working Group (PWG), which will be chaired by a Deputy Minister of MOE, and will include representatives of the Departments of Schools and of Economy and Finance of MOE, the Republican Publishing Office,

the Central Education Supply Office, the Center for New Information Technology, RTII, IEP, and such other departments and units of MOE and schools and institutions as may be required for the effective coordination and implementation of the Project. The Project manager will act as secretary of PWG. The PWG will meet as necessary to discuss questions related to Project implementation and management, and decide on appropriate action to resolve any problems that may be encountered.

#### **4. Project Steering Committee**

53. Broader policy guidance will be provided by a Project Steering Committee, which will be chaired by the Minister of Education or his representative, and will include representatives of the Ministry of Finance and the Committee for the Utilization of Foreign Capital. The Steering Committee will meet at least twice a year.

#### **5. Implementation Schedule**

54. The Project will be implemented over a period of five years. Taking into account the urgency of providing the education system with equipment, the bulk of Project inputs will be provided during the first 30 months. Only textbook provision will continue during the entire Project period. The tentative implementation schedule is in Appendix 12.

#### **6. Procurement of Goods and Services**

##### **a. Equipment, Furniture and Instructional Materials**

55. All procurement of equipment, furniture, textbooks, and instructional and consumable materials to be funded from the proceeds of the Bank loan will be in accordance with the Bank's *Guidelines for Procurement*. Procurement will follow international competitive bidding, international shopping, local competitive bidding or direct purchase.

56. Textbooks and instructional materials will be procured under 30-40 separate contracts for different titles, through local competitive bidding or direct purchase depending on the size of the contract. The preparation of new textbooks will be carried out under about 40 contracts following direct selection of qualified authors or groups of authors. Equipment lists and procurement arrangements are in Appendix 7.

##### **b. Consulting Services**

57. The Project will require a total of 104 person-months of specialist services: 82 domestic and 22 international. The international consultants will be recruited through a firm or as individual consultants in accordance with the Bank's *Guidelines on the Use of Consultants*; the domestic consultants will be recruited by the Government in accordance with competitive selection arrangements acceptable to the Bank. Outline terms of reference are in Appendix 9. The detailed terms of reference of the consultants will be finalized and agreed upon by the Government and the Bank prior to recruitment.

58. An international consultant will assist and advise MOE in all aspects of Project implementation and equipment procurement, including detailed specification of Project equipment, bid documentation and evaluation, equipment receipt and installation, and follow-up. The international consultant will assist in the establishment of appropriate procedures, train MOE counterpart staff, and prepare appropriate guidelines and manuals. Provision is made for the translation of documents at different stages of procurement. Since the former Soviet Union was Kazakhstan's principal source of educational equipment prior to independence, much of the equipment to be procured under the Project will be new to staff, teachers, and pupils. It will be important to ensure that equipment specifications require instructions and manuals in Russian and Kazakh.

## **7. Advance Action and Retroactive Financing**

59. In view of the urgent nature of the support provided by the Project, it is essential for MOE to undertake advance action, in particular the selection and recruitment of consultants; establishment of procurement procedures and guidelines, and related staff training; the finalization of equipment specifications and preparation of bid documents; and preparation of selection criteria for staff development programs. MOE appointed the Project manager prior to appraisal to facilitate advance action. Retroactive financing in an amount of up to \$200,000 has been approved by the Bank for expenditures for selection and recruitment of consultants incurred between Project appraisal and loan effectiveness. All advance action will be in accordance with the Bank's *Guidelines on the Use of Consultants* and *Guidelines for Procurement*. The Government was advised that the approval of advance action and retroactive financing does not commit the Bank to finance the Project.

## **8. Implementation Review**

60. The Project is the Bank's first project loan to Kazakhstan and implementation arrangements will require careful review. Procurement arrangements will be reviewed after 6 months of implementation. A midterm review of all aspects of the Project will be carried out by the Government and the Bank at the end of 18 months of implementation. Based on the findings of the reviews, necessary changes to the Project will be considered by the Government and the Bank.

## **9. Operation and Maintenance**

61. The Government will operate the educational institutions and facilities under the Project in accordance with sound administrative and educational practices. The Government, through MOE and *oblast* DOEs and *raion* Education Officers, will provide the physical facilities and furniture required for the effective installation and operation of equipment, furniture, textbooks, and instructional materials provided under the Project; and staff and funds for their operation and maintenance.

62. The Government will finance operation and maintenance costs for equipment provided to schools and DOEs from *oblast* education budgets. Approximately 63 percent of the 1995 total *oblast* education budgets is for salaries and 37 percent is for other costs including textbooks, equipment, and operation and maintenance. The annual operation and maintenance

costs of equipment provided under the Project after Project completion is estimated at \$0.4 million, or 0.3 percent of the 1995 *oblast* level, nonstaff education budget allocations.

## **10. Benefit Monitoring and Evaluation**

63. The Project will lay the foundation for benefit monitoring and evaluation (BME) by establishing an educational MIS. Once MIS is operational, it will provide regular data for the management and monitoring of the education system, including facilities and equipment, educational finance, staff, pupil/student flows, and internal and external efficiency. Within three months after the date of loan effectiveness, MOE will compile baseline data on the schools and institutions covered by the Project, to allow for comparison with data once MIS is operational. The framework for BME is in Appendix 13.

## **F. Environmental and Social Measures**

64. The education system in Kazakhstan covers the entire country, and participation rates for all income groups are reportedly high. Female pupils/students account for over half of enrollments at virtually all levels of education and have shown no significant proportional decline since independence (see Appendix 3). To ensure broad coverage of different regions and income groups, the Project includes schools from each of the country's 19 *oblasts* and the cities of Almaty and Leninsk, and from both urban and rural areas.

65. Since the Project concentrates on equipping existing schools, it will have no significant adverse environmental consequences. Necessary precautions will be taken in disposing of old equipment and furniture. Environmental topics and other relevant information will be incorporated in new textbooks and instructional materials. Some environmental benefits are envisaged through improved teaching in comprehensive schools of environment-related subjects, in particular science and social science.

# **V. PROJECT JUSTIFICATION**

## **A. Socioeconomic Analysis**

### **1. Project Benefits**

66. Economic transition has had serious implications for the education system. Cutbacks in educational finance have led to deterioration of educational facilities and equipment, and to attrition of teachers and staff. At the same time, rapid changes in the labor market and technology are placing new demands on the system. The Project will assist the Government both to rehabilitate the education system and to respond to human development needs, steps that are essential for successful economic transition.

67. The upgrading of general education will enable the system to produce graduates with a better knowledge of mathematics, science, social science, foreign languages and computers. By strengthening and increasing the flexibility of the general educational foundation provided at the primary, lower secondary, and upper secondary levels, the Project will contribute

to improving the quality of pupils/students enrolling in TVE and higher education. Ultimately, the quality of graduates at all levels will improve. Thus, the Project will support Government efforts to enable the education system to meet new and emerging needs.

68. The Project will assist MOE in improving the internal efficiency of general education through measures to strengthen the managerial efficiency of the education system. These include (i) introducing a computerized MIS, which will provide MOE and DOEs with regular data for management purposes on finance, facilities, equipment, staff and teachers, and pupil/student flows, and (ii) developing and carrying out training programs on modern methods of school management for school principals. The Project will support these measures through external training programs for selected staff and teacher trainers.

69. A major expected benefit of the Project will be a substantial improvement in the quality of the graduate output at the lower and upper secondary levels. Project activities will support MOE in bringing about educational improvements. These include supporting the development of the new learner-based curriculum and related new textbooks; upgrading teachers' knowledge and skills; upgrading equipment levels, particularly in science, language, and computer education; and improving instructional materials and training aids. These activities will substantially improve the quality of general education, which will be reflected in higher progression and pass rates of students.

70. The Project will strengthen the external efficiency of general education. Specifically it will improve the ability of the lower and upper secondary education system to channel graduates to TVE, higher education, and employment. The curriculum changes, textbooks and instructional materials, and improvements in equipment for science, language, and computer education will enhance the relevance of general education to the economic transition and related changes in technology, higher education, and the labor market.

71. The upgrading of the RTII and TII programs and equipment, and the qualifications of teacher trainers will enable these institutes to offer in-service training programs of higher quality and relevance. By ensuring that managerial, pedagogical, subject-matter, and skill training keep pace with recent developments, the Project will enable teachers and staff to play an active role in the development and reform of the education system.

## **2. Project Risks**

72. The Project is the Bank's first project loan to Kazakhstan and the first multilateral loan executed by MOE. Steps have been taken to involve responsible MOE staff closely in Project preparation and familiarize them with Bank policies and procedures. A Project office has been established in MOE and provided with basic office equipment under the project preparatory TA. The office will be strengthened under the Project (see paras. 50 and 51). Provision is also made for external training in project management for two staff.

73. Equipment procurement will require close scrutiny and support because the Government lacks familiarity with international competitive bidding procedures and sources of supply and MOE staff in general lack facility in English. Provision is made for an international

consultant in project implementation and equipment procurement to assist and advise MOE, and for other forms of support for procurement (see para. 58).

74. Attrition of teachers and staff, due mainly to low salaries, has been identified as a potential risk. An improvement in the salary level of teachers and staff in the public education sector is closely connected to broader developments in the economy and the Government's financial situation, and is not anticipated in the short term. By developing teacher training facilities and programs, the Project is expected to enhance the attractiveness of the teaching profession and contribute to reducing staff attrition.

## **B. Social Dimensions**

75. The immediate beneficiaries of the Project will be about 146,000 pupils enrolled in the 180 comprehensive schools supported by the Project. Based on 1994 enrollment figures, approximately 78,000 (53.4 percent) of the pupils are female. By providing support to the development of a new curriculum, the development and provision of textbooks, and staff and teacher training, the Project will also benefit pupils enrolled in primary, lower secondary, and upper secondary education in general.

76. The beneficiaries also include about 11,600 teachers in the schools supported by the Project, about 340 teacher trainers in the RTII and five *oblast* TIIs, and about 500 staff members of MOE and *oblast* DOEs. Approximately 17 staff and teacher trainers will enhance their professional qualifications and competence by participating in external training programs, and about 1,070 teachers and staff will benefit from in-country training programs. By improving training programs for teachers (80 percent of whom are female) and facilities for teacher training, the Project is expected to help enhance the attractiveness of the teaching profession.

77. The Project will have social benefits in improving the quality of education in selected schools throughout the country, including remote areas. Approximately half of the schools covered by the Project are in urban areas, and the other half are in rural areas. With the even gender distribution of enrollments at the primary and secondary level, Project benefits are expected to be relatively equally distributed between male and female pupils.

## **VI. ASSURANCES**

78. The Government has given the following assurances, in addition to the standard assurances, which have been incorporated in the legal documents:

- (i) MOE will establish PIU, including the appointment of the Project manager and two full-time staff members, to handle day-to-day management of all Project activities.
- (ii) The Government will establish the Project Steering Committee to provide policy guidance.



- (iii) MOE will take steps to ensure that DOEs will make adequate staff and budgetary resources available for the operation and maintenance of equipment provided under the Project.
- (iv) MOE will take steps to ensure that all schools and institutions supported under the Project will have qualified language teachers to make use of the language laboratory equipment provided under the Project, and that all schools and institutions provided with computer equipment will have at least one qualified computer science teacher to make use of the computer equipment provided under the Project.
- (v) Within three months after the date of loan effectiveness, MOE will compile BME baseline data on each school and educational institution covered by the Project, including basic information on facilities, equipment, staff, teachers, and enrollment, through a questionnaire prepared by MOE and approved by the Bank.
- (vi) The Government will ensure that appropriate steps are taken to encourage emerging private publishers in Kazakhstan to participate in the publication of textbooks to be purchased under the Project in accordance with arrangements acceptable to the Bank.
- (vii) The Government will award contracts to authors for the preparation of textbooks and related instructional materials in accordance with arrangements acceptable to the Bank.
- (viii) MOE will ensure that the recipients of external training will continue their service with MOE or in a capacity relevant to the training provided for a reasonable period of time after completion of such training.

## VII. RECOMMENDATION

79. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank and recommend that the Board approve the loan in various currencies equivalent to Special Drawing Rights 13,382,000 to the Republic of Kazakhstan for the Educational Rehabilitation and Management Improvement Project, with a service charge at the rate of 1 percent per annum and with an amortization of 35 years, including a grace period of 10 years and such other terms and conditions as are substantially in accordance with those set forth in the draft Loan Agreement presented to the Board.

MITSUO SATO  
President

13 November 1995

## APPENDIXES

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## BRIEF DESCRIPTION OF THE EDUCATION SYSTEM IN KAZAKHSTAN

1. The education system in Kazakhstan is the responsibility of the Ministry of Education (MOE) and is administered through a network of Departments of Education (DOEs) in the country's 19 provinces (*oblasts*) and two major cities (Almaty and Leninsk), and Education Officers at the district (*raion*) level. MOE is responsible for preschool, general, special, technical and vocational, and higher education, including most specialized technical higher education institutes and universities. Specialized technical schools (technicums) are under the responsibility of various ministries, and six higher level medical institutes come under the responsibility of the Ministry of Health. The Ministry of Labor is responsible for nonformal skill training.
2. MOE is responsible for the construction of educational institutions, the provision of equipment, the design of the curriculum at all levels of education, conduct of examinations, and recruitment and in-service training of teachers and staff. New educational legislation enacted in 1992 gives MOE the responsibility for making educational policy and setting national guidelines and standards.
3. In the public sector, the Republican budget finances MOE, universities and other higher education, and special education, while local budgets allocated to the *oblasts* finance primary, secondary, and technical and vocational education (TVE). The total 1994 public sector education budget was T13.5 billion (\$362 million), of which the Republican budget was T2.3 billion (\$62 million) and the total *oblast* budgets T11.2 billion (\$300 million). The corresponding figures in 1995 are T36.0 billion (\$581 million), T9.4 billion (\$152 million), and T26.6 billion (\$429 million). Recently there have been limited cost recovery initiatives in public educational institutions. Some public schools are offering new optional courses for a fee, some vocational schools have established production units, and some higher education institutions are undertaking consultancies. Higher level institutions also admit up to 15 percent of their intake as paying students.
4. Private schools and educational institutions are licensed by MOE and must meet MOE curricular standards. Since independence, a small private education sector has emerged, mainly at the higher level. In 1994, there were 38 licensed private higher education institutions, mainly in such fields as law, economics, accounting, and foreign languages.
5. In the past, Kazakhstan had a well-established preschool system for children from 18 months to 6 years of age, mainly in connection with state enterprises and state and collective farms. Because of enterprise failure and financial constraints, numerous preschools have recently closed. In 1991, there were 8,881 preschools with a total enrollment of 1.0 million children (46.6 percent female). In 1994, the operational preschools had declined to 6,551 and enrollments to 0.54 million (46.9 percent female).
6. The education system in Kazakhstan is divided into three levels. The first level covers general education, from grade 1 to 11. The second level includes upper secondary and postsecondary level TVE and education of primary school teachers. The third level comprises universities and equivalent institutions, and other institutions offering higher education. Enrollments at the different levels are in Table 1.

**Table 1: Student Enrollments by Level ('000)**

Level	1985	1990	1991	1992	1993	1994
Primary and Secondary	3,348	3,225	3,226	3,199	3,176	3,112
Technical and Vocational Education and Primary School Teacher Training	278	248	239	231	222	214
Higher	273	287	288	280	272	267
Total	3,899	3,760	3,753	3,710	3,670	3,593

Source: State Committee on Statistics

7. The general education system has a 4-5-2 pattern, consisting of four years of primary, five years of lower secondary, and two years of upper secondary education. Prior to independence, general education was compulsory up to grade eleven. After independence, compulsory education was reduced to nine years, but was again raised to eleven in the new constitution approved in August 1995. After completing lower secondary education, pupils can go on to upper secondary general education or enroll in TVE. General secondary schools offer a foundation for further education at the postsecondary and tertiary levels, while TVE prepares pupils/students for employment and further technical education.

8. Primary and secondary education is provided by about 8,380 schools throughout the country. Approximately 1,690 schools offer only primary education, while the remaining 6,690 comprehensive schools, which are usually called secondary schools, offer all three levels. Age at entry is six to seven years. Education is for 26, 30 and 35 hours per week, respectively, at the primary, lower secondary, and upper secondary levels. Owing to a shortage of classrooms and facilities, the schools operate in two shifts, one in the morning and the other in the afternoon. In addition, 119 schools provide basic education for the mentally handicapped.

9. The language of instruction varies. In 1995, it was Kazakh in approximately 3,300 schools, Russian in 2,510 schools, and mixed in 2,470 schools, with the language of instruction depending on the mother tongue of the pupils. In addition, 97 schools provide basic education in the languages of different ethnic groups: 72 in Uzbek, 17 in Uigur, 4 in Turkish, 3 in Tajik, and 1 in German. In 1994, total enrollment in primary and general secondary education was 3.1 million (50.1 percent female).

10. TVE is provided at the upper secondary and postsecondary levels and is divided into two streams: vocational education and technical education. Vocational schools offer a combination of general education and vocational and technical skills and prepare graduates directly for employment. Technicums offer pupils/students at the upper secondary and

postsecondary level a higher level of occupational/professional skills and a foundation for higher technical education.

11. Pupils/students enter vocational schools after the ninth or eleventh grade. Lower secondary education graduates receive one year of general education before proceeding to a vocational specialization, while upper secondary graduates proceed directly to a specialization. Specialization lasts for two to three years, depending on the subject. The vocational stream also takes in pupils who have not completed ninth grade for a two-year program, which provides skills for the labor market. Vocational schools provide skill training in close cooperation with enterprises. Financial difficulties and shutdowns of enterprises have led schools to cut back enrollments, diversify their courses, and, in some instances, close down. In 1994 there were 340 operational vocational schools.

12. Technical education is offered by technicums at the upper secondary and postsecondary levels. Compared with those in vocational schools, students are provided with a higher level of technical education with greater emphasis on academic skills. Programs last two to four years. In 1994, there were 246 technicums. Of these, 95 were under the responsibility of MOE: 32 in pedagogical disciplines, mainly for primary school teachers, and 63 in technical and economic subjects. The remaining 151 technicums, mainly in agriculture and industrial fields, were under the responsibility of different ministries. In 1994, the total enrollment at the second level was 214,300 (58.4 percent female).

13. Higher education is provided by 14 universities and university-level institutions and approximately 40 technical, agricultural and pedagogical institutes under MOE, and 6 medical institutes under the Ministry of Health. Courses at the technical institutes last from four to five years, and those at university level at least four years. In 1994 the total enrollment at the higher level was 297,000 (52.6 percent female).

14. In general, teachers in Kazakhstan are relatively well educated and trained. In-service training of primary and secondary school teachers is carried out by the Republican Teacher Improvement Institute (RTII) in Almaty at the national level and a network of 20 Teacher Improvement Institutes (TII) covering 19 *oblasts* and Almaty. The RTII provides training mainly for school principals, teacher trainers, and senior teachers, while the TIIs provide teacher training at the *oblast* level. Training focuses on pedagogical skills and subject knowledge, and most courses last for one to four weeks. In-service training for TVE teachers throughout the country is the responsibility of the Republican Vocational Teacher Improvement Institute in Almaty.

15. In 1994, the general education system employed 270,000 teachers (79.9 percent female), giving an overall teacher-student ratio of 1:11. Second-level educational institutions employed 19,000 teachers, and higher level institutions employed 27,200 teachers, giving teacher-student ratios of 1:11 and 1:10, respectively.

[illegible]

**Source: Ministry of Education**

### PARTICIPATION OF WOMEN IN EDUCATION

**Table 1: Proportion of Female Pupils/Students Enrolled  
by Level of Education (percent)**

Level	1985	1990	1991	1992	1993	1994
Preschool	n.a.	n.a.	46.6	46.3	46.6	46.9
Primary and Secondary	49.7	48.9	48.9	50.2	50.2	50.1
Technical and Vocational Education and Primary School Teacher Training	57.8	56.9	57.3	58.6	58.8	58.4
Higher	56.2	50.2	51.2	51.5	51.6	52.6
Average	50.8	49.6	50.6	50.9	50.9	50.8

Source: State Committee on Statistics

**Table 2: Primary and Secondary School Teachers**

	1988	1990	1991	1992	1993	1994
Total number of teachers ('000)	183.9	193.6	207.5	220.6	222.5	216.0
Female teachers (percent)	77.0	78.0	79.8	80.6	79.3	79.9

Source: State Committee on Statistics

## PROJECT FRAMEWORK

Narrative Summary	Indicator of Achievement	Means of Verification	Assumptions, Risks, and Constraints
<b>1. Development Objective</b>			
1.1. To stem the decline in the quality of primary and secondary education and to strengthen the education system in line with the needs of the economic transition.	1.1. Improved internal efficiency of education 1.2. Improved external efficiency of education 1.3. Improved placement of graduates in further education and in labor market 1.4. Improved employer satisfaction	1.1. MOE Annual Reports 1.2. Principals' reports and tracer studies 1.3. Tracer studies 1.4. Surveys by MOE	1.1.-1.4. - No radical change in education budget - Labor market profile sustained - Timely establishment of MIS
<b>2. Immediate Objectives</b>			
2.1. To meet urgent needs for equipment, textbooks, and instructional materials.	2.1.1. 180 comprehensive schools equipped by 1998 2.1.2. One million textbooks purchased and distributed by 2000 2.1.3. Forty new textbooks developed by 2000	2.1. PIU and MOE reports and principals' reports	2.1.-2.2. - Timely actions by PIU - Appropriate policies for retention of MOE staff and school staff and teachers - Appropriate equipment procurement procedures and practices developed - Effective management training within MOE
2.2. To strengthen educational management and staff development in the MOE and the education system.	2.2.1. MIS in place in MOE by 1997 2.2.2. Improved flow and use of management information in MOE 2.2.3. RTII and five TIIs strengthened by 1997 2.2.4. 1,087 staff and teachers trained by 1998	2.2. PIU and MOE reports, and principals' reports	
<b>3. Outputs</b>			
3.1. Selected comprehensive schools provided with priority equipment.	3.1.1. Equipment in place in 180 schools in 1998	3.1.-3.4. PIU and MOE reports, and principals' reports	3.1.-3.4. As for 1.1.-1.4. and 2.1.-2.2.
3.2. Textbook production strengthened and priority textbooks provided	3.2.1. One million textbooks purchased and distributed by 2000 3.2.2. Forty new textbooks developed by 2000		
3.3. Educational MIS established.	3.3.1. MIS in place in MOE by 1997 3.3.2. Software developed and staff trained for MIS		
3.4. Strengthened staff development.	3.4.1. RTII and five TIIs equipped by 1997 3.4.2. 1,087 staff and teachers trained by 1998		

### Legend:

MIS	--	Management Information System	RTII	--	Republican Teacher Improvement Institute
MOE	--	Ministry of Education	TII	--	Teacher Improvement Institute
PIU	--	Project Implementation Unit			



## PROJECT COMPONENTS

1. The Project has four components. They are described in the following sections.

### A. Provision of Urgently Needed Equipment to Priority Schools

2. The Project will provide 180 comprehensive schools throughout the country with urgently needed equipment. All the schools offer general education at the primary and lower secondary levels, and most at the upper secondary level. Schools have been identified in each of the country's 19 *oblasts* and the cities of Almaty and Leninsk, from areas of economic potential and disadvantaged areas. Approximately half of the schools are in urban and half in rural areas.

3. Selection criteria included the schools' performance record, managerial capability, and demonstrated ability to respond to change. To increase the number of pupils benefiting from the Project, many of the schools have relatively high enrollments. The schools selected have an average enrollment of 810, compared with 370 for primary and comprehensive schools in general. The schools provide relatively even coverage for the country's ethnic groups: 79 offer instruction in Kazakh, 59 in Russian, 40 in both Kazakh and Russian, 1 in Uzbek and 1 in both Uzbek and Tajik. The list of schools is in Appendix 6.

4. The equipment will meet the most immediate needs of the schools, and will strengthen their capability to carry out their basic educational task and to respond to new needs, particularly in language and computer education. The equipment has been grouped into two packages. A basic package with eight subpackages (audiovisual equipment, language laboratory equipment, furniture for language laboratory, physics laboratory equipment, chemistry laboratory equipment, carpentry equipment, metalwork equipment, and instructional aids) will be provided to all 180 schools. A second package has equipment for the establishment of a modern computer classroom and consists of four subpackages (hardware, software, supplies, and computer furniture). The computer equipment package will go to 90 of the schools, mainly in urban areas, where the computer skills provided will have more direct relevance to job and further education opportunities, and where the technical backup and support required for the computer equipment is readily available. The equipment packages are summarized in Appendix 7.

### B. Textbook Provision

5. The textbook component will support textbook development and provide for the purchase of textbooks and related instructional materials. The Project will provide resources for approximately one million textbooks during the five-year project period, to meet basic educational needs; to support the introduction of the new curriculum (which will be implemented at the primary school level in stages over a four-year period starting in 1997); and to support other educational changes being introduced at the secondary level, in particular modern computer education and the modernization and diversification of language education. The Project will provide additional copies of existing textbooks and new textbooks developed to support the new learner-based curriculum. The textbook component will complement the support provided to computer and language education under other Project components.

6. In the past, textbook production was limited mainly to the state sector. The Project will support the development of a private textbook publishing industry by requiring that the Ministry of Education (MOE) adopt competitive bidding procedures for procurement of textbooks and that private publishers in Kazakhstan be encouraged to bid for textbook contracts awarded under the Project.

7. The Project will support curriculum change and the development of related textbooks, teachers' aids, and other instructional materials. The Project makes provision for contracts with authors, selected in accordance with arrangements acceptable to the Bank, for the development and preparation of textbooks and instructional materials for the new curriculum at the primary school level, and for selected textbooks or instructional materials related to computer and language education at the secondary level.

8. Provision is also made for desktop publishing and duplication equipment for the MOE Institute of Educational Problems (IEP). IEP is responsible for developing and introducing the new curriculum, including coordinating the development and preparation of sets of textbooks and related instructional materials necessary to implement the new curriculum. The desktop publishing equipment will enable IEP, in cooperation with authors, to prepare proofs of new textbooks and instructional materials, for publishers contracted to publish the textbooks.

### **C. Establishment of a Computerized Educational Management Information System**

9. The establishment of a computerized educational MIS in MOE is a prerequisite to the modernization of educational management, the effective implementation of planned educational reforms, and the improvement of the efficiency of the educational system, including the rationalization of educational expenditure.

10. MIS will consist of computerized data systems within MOE, in key departments and units in MOE with operational and administrative responsibilities, and supported by MIS units in DOEs in 19 *oblasts* and the cities of Almaty and Leninsk. MIS will include data bases in the following main areas:

- (i) budget and financial management;
- (ii) buildings and facilities;
- (iii) furniture, equipment, spare parts, and materials;
- (iv) libraries and textbooks;
- (v) teachers and staff;
- (vi) academic programs and curricula;
- (vii) student enrollment and progression; and
- (viii) monitoring and evaluation of the benefits of educational programs.

11. Because of the present low level of computerization and use of such data in MOE, MIS will be developed and implemented in several stages. The first stage will be addressed by the Project and will entail (i) determination of the basic MIS strategy and structure (including basic protocols or guidelines for progressive expansion); (ii) development of the necessary MIS programs; (iii) procurement and installation of computer hardware for the core of MIS at MOE and in Departments of Education (DOEs) at the *oblast* level and in Almaty and Leninsk; (iv) initial

training of MOE and DOE staff responsible for MIS; and (v) training of staff at the *raion* or school level on providing data for MIS, and using data provided by MIS. Once the first stage of MIS is operational with MIS units at MOE and DOE levels, the system can be expanded to the *raion* and school level.

12. The Project will provide equipment for a central MIS unit (four computers and two printers), the establishment of MIS units (two computers, one printer, and peripherals) in key departments and units of MOE, and the establishment of one MIS unit (two computers, a printer, a telecommunications link and peripherals) in each DOE. The Project will also provide for external training in MIS for two MOE staff (and one interpreter); for domestic consultants to develop the software and training manuals; and for in-country training in the operation of MIS for 120 MOE and DOE officials under the staff development component.

#### **D. Strengthening of Staff Development**

13. The Project will upgrade the equipment and instructional materials production capability of the Republican Teacher Improvement Institute (RTII) in Almaty and 5 of 20 Teacher Improvement Institutes (TIIs). The five TIIs were selected to provide coverage for teacher training needs throughout the country and are located in Akmola, Zhambyl, Kokshetau, Semei, and Oral. Each institute will be provided with equipment for a modern computer classroom with 15 workstations, a language laboratory, and equipment for the production and duplication of instructional materials and aids. During Project implementation, the RTII and five TIIs will serve as focal points for the development and provision of staff training programs.

14. The Project will provide for the development, by domestic consultants as well as MOE and RTII staff who receive overseas training under the Project, of training programs and materials in the following areas: modern computer applications, modern methods of language instruction, modern methods of educational and school management, and modern teaching and training methods. Provision is made for the initial conduct, at the RTII and TIIs as appropriate, of in-country staff and teacher training programs in the above areas for a total of approximately 750 principals, teacher trainers, and senior teachers. Provision is also made for the training of approximately 200 teacher trainers and teachers in the new learner-based curriculum. Once the training programs have been developed and the equipment upgraded, the RTII and TIIs will continue to run the courses as part of their regular programs.

15. Provision is made for training in the educational MIS for 120 staff from different departments and units of MOE and from the DOEs in 19 *oblasts* and Almaty and Leninsk.

16. Provision is also made for short-term external training, with the objective of familiarizing key staff and teacher trainers with different aspects of education sector policy, management, and instruction, and facilitating the preparation of the in-country training programs. External training will cover the following topics: comparative education systems, educational management, educational MIS, modern methods of computer instruction, and modern methods of language instruction. In addition, to strengthen MOE's implementation capacity, two staff members will receive training in project management.

## LIST OF SCHOOLS

Schools Provided with Basic Equipment Package		Schools Provided with Basic and Computer Equipment Packages	
School	1994 Enrollment	School	1994 Enrollment
<b>Akmola Oblast</b>			
1. Sec. Sch. No. 2, Vishnevka village	578	7. Sec. Sch. No. 6, Akmola	1,302
2. Sec. Sch., Pavlovka village	885	8. Sec. Sch. No. 37, Akmola	1,135
3. Sec. Sch. No. 4, Alexeevka village	488	9. Sec. Sch. No. 10, Akmola	1,456
4. Sec. Sch. Aryktinsky Sovkhoz	462	10. Sec. Sch. No. 4, Akmola	860
5. Sec. Sch., Novosamarskaya, Samarsky Sovkhoz	304	11. Upper Sec. Sch. No. 9, Akmola	490
6. Izhevskaya Sec. Sch., Vohnevsky	586		
Subtotal	3,303	Subtotal	5,243
<b>Zhambyl Oblast</b>			
12. Sec. Sch., Kulan village	497	16. Lyceum - Boarding Sch., Karatau	324
13. Kazakh Sec. Sch., Sarykemer village	801	17. Sec. Sch. No. 8, Zhambyl	1,145
14. Sec. Sch. Makarenko, Sarykemer village	1,189	18. Sec. Sch. - Lyceum, Georgievka Village	1,007
15. Sec. Sch. Grodikovskaya, Zhambyl	789	19. Sec. Sch. No. 44, Zhambyl	1,042
		20. Sec. Sch. No. 18, Merke	1,180
Subtotal	3,276	Subtotal	4,698
<b>Karaganda Oblast</b>			
21. Sec. Sch. No. 95, Karaganda	855	25. Sec. Sch. No. 29, Karaganda	1,130
22. Sec. Sch., Yeltytay village	1,030	26. Sec. Sch. No. 39, Karaganda	1,319
23. Sec. Sch., Besobinsk village	358	27. Sec. Sch. No. 31, Temirtau	1,282
24. Sec. Sch., Baiytkyul village	293	28. Sec. Sch. No. 82, Karaganda	1,221
		29. Kazakh Boarding Sch. No. 2, Karaganda	550
		30. Kazakh Boarding Sch. No. 7, Karaganda	517
Subtotal	2,536	Subtotal	6,019
<b>Kokshetau Oblast</b>			
31. Kuibyshevskaya Sec. Sch.	1,180	37. Sec. Sch. No. 3, Kokshetau	737
32. Sec. Sch. Kazgorodok village	370	38. Sec. Sch., No. 5, Kokshetau	1,104
33. Kazakh Boarding Sch., Zerendy village	244	39. Sec. Sch. No. 17, Kokshetau	2,081
34. Aidagul Sec. Sch.	327	40. Regional Boarding Sch., Kokshetau	800
35. Sec. Sch., Zeleny Bor village	1,054		
36. Sec. Sch. No. 2, Leningrad village	792		
Subtotal	3,967	Subtotal	4,722
<b>Kostanai Oblast</b>			
41. Sec. Sch., Silant'evka village	464	46. Pedagogical lyceum No. 1, Altynsarin	536
42. Sec. Sch. No. 1, Fedorovka	688	47. Technical Sec. Sch. No. 5, Zhetygara	730
43. Sec. Sch., Zhambyl village	640	48. Sec. Sch. No. 2, Valikhanov, Semiozerny	313
44. Sec. Sch., Karasu village	740	49. Kazakh Lower Sec. Sch., Lisakovsk	158
45. Sec. Sch. Leninsk, Leninsk region	812		
Subtotal	3,344	Subtotal	1,737

Schools Provided with Basic Equipment Package		Schools Provided with Basic and Computer Equipment Packages	
School	1994 Enrollment	School	1994 Enrollment
<b>Pavlodar Oblast</b>			
50. Sec. No. 1, Sch., Kyzylzhar village	581	55. High Sec. Sch No. 3, Pavlodar	782
51. Sec. Sch., Shcherbakty village	1,086	56. High Sec. Sch. No. 1, Aksu	1,178
52. Sec. Sch. No. 1, Bayanaul village	377	57. Sec. Sch. No. 18, Pavlodar	1,758
53. Kalkaman Sec. Sch.	959	58. Sec. Sch. No. 39, Pavlodar	2,319
54. Maikainskaya Sec. Sch. No. 2	732		
Subtotal	3,735	Subtotal	6,037
<b>Atyrau Oblast</b>			
59. Sec. Sch. Shonaev, Makhambet village	449	63. Sec. Sch. No. 15, Atyrau	952
60. Sec. Sch. Abay, Balykshy village	836	64. Sec. Sch. No. 8, Atyrau	1,053
61. Sec. Sch. Myrzagalieva, Chapaev village	632	65. Sec. Sch. No. 17, Atyrau	1,136
62. Sec. Sch. Lomonosov, Goryushkino village	620		
Subtotal	2,537	Subtotal	3,141
<b>North Kazakhstan</b>			
66. Leninsk Sec. Sch., Sergeevsky	480	72. Regional High Boarding Sch., Petropavl	458
67. Sec. Sch., Kirov village	230	73. Sec. Sch. No. 3, Petropavl	1,499
68. Sec. Sch., Karagach village	228	74. Sec. Sch. No. 9, Petropavl	1,618
69. Sec. Sch., Aralagash village	360		
70. Sec. Sch. No. 1, Sergeevka	797		
71. Sec. Sch., Pokrovka village	464		
Subtotal	2,559	Subtotal	3,575
<b>Semei Oblast</b>			
75. High Sec. Sch., Karaul village	988	79. Sec. Sch. Abay, Charsk	473
76. Sec. Sch., Kainar village	671	80. High Sec. Sch. No. 37, Semei	1,236
77. Sec. Sch., Aksuat	1,417	81. High Sec. Sch. No. 5, Semei	1,034
78. Boarding Sch. No. 1, Semei	809	82. Sec. Sch. No. 16, Semei	1,075
Subtotal	3,885	Subtotal	3,818
<b>Torgai Oblast</b>			
83. Sec. Sch., Karatubek village	483	86. High Sec. Sch. Toretam, Arkalyk	376
84. Sec. Sch. No. 2, Kiyma village	631	87. Sec. Sch. No. 4, Arkalyk	1,058
85. Regional Boarding Sch., Valikhanov	264	88. Sec. Sch. No. 7, Arkalyk	1,416
Subtotal	1,378	Subtotal	2,850
<b>Taldykorgan Oblast</b>			
89. Sec. Sch. No. 10, Taldykorgan	1,100	92. Regional Boarding Sch. for outstanding children, Taldykorgan	1,050
90. Sec. Sch., Zhanalyk village	334	93. Sec. Sch. No. 18, Taldykorgan	1,163
91. Regional High Boarding Sch., Taldykorgan	532	94. Sec. Sch. No. 14, Taldykorgan	990
		95. Sec. Sch. Pushkin, Ushtobe	1,163
Subtotal	1,966	Subtotal	4,366

Schools Provided with Basic Equipment Package		Schools Provided with Basic and Computer Equipment Packages	
School	1994 Enrollment	School	1994 Enrollment
<b>South Kazakhstan</b>			
96. Sec. Sch. Momyshty, Zhetysay	1,383	107. Sec. Sch. Titov, Slavyanka village	726
97. Sec. Sch., Suzak village	908	108. Sec. Sch. Valikhanov, Uzhim village	621
98. Sec. Sch. No. 2, Kokoral village	339	109. Sec. Sch. Auezov, Rakhimov village	712
99. Sec. Sch., Yntymak village	1,200	110. Sec. Sch. Ayni, Saryagach	564
100. Sec. Sch., Akdala village	709	111. Sec. Sch. No. 7, Shymkent	1,446
101. Sec. Sch., Shardara	1,405	112. Kazakh Sec. Sch. No. 12, Kentau	928
102. Sec. Sch., Seyfullin	1,073	113. Sec. Sch. No. 58 Shymkent	696
103. Sec. Sch. No. 26, Sayramsky	605		
104. Lower Sec. Sch. No. 63, Shymkent	314		
105. Sec. Sch. No. 18, Turkestan town	1,270		
106. High Boarding Sch. Shaulder village	604		
Subtotal	9,810	Subtotal	5,693
<b>Almaty Oblast</b>			
114. Sec. Boarding Sch., Bakanas village	469	118. Sec. Sch. Zhambyl village	459
115. Sec. Sch. Abay, Chilik village	469	119. Sec. Sch. Abay, Kaskelen	714
116. Sec. Sch., Kyzylchekara village	574	120. Sec. Sch. Lomonosov, Issyk	846
117. Sec. Sch., Turar village Kaskelensky	375	121. Boarding School No. 4	344
Subtotal	1,887	Subtotal	2,363
<b>East Kazakhstan</b>			
122. Sec. Sch. Lenin, Katonkaragay village	753	127. High Sec. Sch. Nurgaliev, Markakol village	808
123. Sec. Sch. Terektbulak village	215	128. Regional Kazakh High Sec. Sch.	216
124. Sec. Sch. Alexeevka village, Markakol	1,100	129. High Sec. Sch. No. 34, Oskemen	811
125. High Sec. Sch., Leninogorsk	324	130. Sec. Sch. No. 4, Oskemen	979
126. Ahabul'skaya Sec. Sch., Zaisan	450	131. High Boarding Sch., Zhambyl	237
Subtotal	2,842	Sub-total	3,051
<b>Zhezkazgan Oblast</b>			
132. Sec. Sch. No. 4, Karagenkir village	407	134. Sec. Sch. No. 6, Zhezdy village	1,034
133. Sec. Sch. Altynsarin, Aksu-Ayuly village	677	135. Sec. Sch. No. 8, Zhezkazgan	1,729
Subtotal	1,084	136. Sec. Sch. No. 26, Zhezkazgan	1,212
		Subtotal	3,975
<b>West Kazakhstan</b>			
137. Sec. Sch. No. 1, Fedorovka village	612	141. Sec. Sch. No. 3, Oral	1,230
138. Sec. Sch., Karauzen village	353	142. Sec. Sch. No. 12, Oral	1,274
139. Sec. Sch. Kaztalovka village	586	143. Sec. Sch. Mametova, Saysin village	1,067
140. Sec. Sch., Djambety village	1,044	144. Sec. Sch. No. 26, Oral	1,421
		145. Sec. Sch. No. 16, Oral	1,215
		146. Sec. Sch., Almaznoe village	386
Subtotal	2,595	Subtotal	6,593

Schools Provided with Basic Equipment Package		Schools Provided with Basic and Computer Equipment Packages	
School	1994 Enrollment	School	1994 Enrollment
<b>Mangystau Oblast</b>			
147. Sec. Sch. Gorky, Bautina village	209	149. Sec. Sch. No. 17, Aktau	1,610
148. Sec. Sch. Abay, Beyneu village	1,237	150. Kazakh High Sec. Sch., Aktau	140
		151. Boarding Sch. Nurniyazov, Mangystau	236
Subtotal	1,446	Subtotal	1,986
<b>Kzylorda Oblast</b>			
152. Sec. Sch. No. 22, Avan village, Aralsk	1,015	156. Sec. Sch. No. 5, Kzylorda	1,044
153. Sec. Sch. No. 95, Kazalinsk	549	157. Sec. Sch. No. 62, Aralsk	916
154. Sec. Sch. No. 176, Syrdarya	879	158. Sec. Sch. No. 4, Kzylorda	1,079
155. Sec. Sch. No. 45, Shiili	712	159. Boarding Sch. No. 1, Kzylorda	276
Subtotal	3,155	Subtotal	3,315
<b>Aktobe Oblast</b>			
160. Novoalekseevsky Sec. Sch.	690	162. Sec. Sch. No. 3, Aktobe	717
161. Sec. Sch. No. 12, Shalkarsk	378	163. Sec. Sch. No. 31, Aktobe	913
		164. Sec. Sch. No. 2, Amba	769
		165. Boarding Sch. for outstanding children, Aktobe	290
Subtotal	1,068	Subtotal	2,689
<b>Almaty City</b>			
166. Sec. Sch. No. 123	1,699	170. Sec. Sch. No. 140	1,321
167. Sec. Sch. No. 55	944	171. Sec. Sch. No. 32	1,378
168. Boarding Sch. No. 16	286	172. High Sec. Sch. No. 161	173
169. Boarding Sch. No. 17	401	173. Sec. Sch. No. 141	1,509
		174. Republican Special Sch. for math and physics	748
		175. Sec. Sch. No. 136	1,090
		176. Sec. Sch. No. 128	1,162
		177. Sec. Sch. No. 56	1,003
		178. Sec. Sch. No. 159	618
Subtotal	3,330	Subtotal	9,002
<b>Leninsk City</b>			
179. Sec. Sch. No. 11, Tyuretam village	611		
180. Sec. Sch. No. 56, Tyuretam village	621		
Subtotal	1,232		
Total Enrollment in Schools Provided with Basic Equipment Package	60,935	Total Enrollment in Schools Provided with Basic and Computer Equipment Packages	84,873
<b>Total Enrollment in Project Schools</b>		<b>145,808</b>	

Notes: Sch. — School

Sec. Sch. — Secondary School

## EQUIPMENT LISTS AND PROCUREMENT ARRANGEMENTS

**Table 1: Equipment for Staff Development, Educational MIS,  
and Textbook Components<sup>a</sup>**

Equipment Component		Cost (\$)
<b>Equipment for Republican Teacher Improvement Institute and Five Teacher Improvement Institutes</b>		
Equipment for a computer classroom, including 15 computers, printers, software, peripherals and consumable materials, a photocopying machine, and a language laboratory <sup>b</sup>		<u>700,200</u>
<b>Equipment for Educational Management Information System</b>		
1.	Computer hardware for one central MIS unit, nine departments and units in MOE, and 21 Departments of Education, including 64 computers and 32 printers <sup>b</sup>	176,600
2.	Software for MIS units	99,400
3.	Accessories and supplies for MIS units	<u>58,800</u>
	Subtotal	334,800
<b>Equipment for Textbook Development</b>		
Desktop publishing equipment for the Institute of Educational Problems		<u>30,000</u>
<b>Total</b>		<b>1,065,000</b>

<sup>a</sup> For packaging and the mode of procurement see Table 3.

<sup>b</sup> Including service and support for at least 12 months for equipment and manuals and documentation in Russian and Kazakh.



Table 2: Equipment for Schools<sup>a</sup>

Equipment Package/Subpackage	Number of Schools	Package Cost (\$)	Total Cost (\$)
<b>Package A: Basic Equipment</b>			
1. Audiovisual equipment (TV, video, audio cassette player, overhead projector and supplies)	180	12,800	2,304,000
2. Language laboratory equipment and supplies (for 1 teacher and 15 students)	180	14,300	2,574,000
3. Language laboratory furniture	180	3,400	612,000
4. Physics laboratory equipment and supplies	180	3,050	549,000
5. Chemistry laboratory equipment and supplies	180	3,050	549,000
6. Hand tools for basic carpentry	180	2,600	468,000
7. Hand tools for basic metalwork	180	4,400	792,000
8. Instructional aids and equipment	<u>180</u>	<u>1,000</u>	<u>180,000</u>
Subtotal	180	44,600	8,028,000
<b>Package B: Computer Equipment</b>			
1. - Computer hardware, including 15 computers, printers and peripheral equipment <sup>b</sup>	90	19,600	1,764,000
2. Computer software applications	90	16,400	1,476,000
3. Accessories and supplies	90	5,200	468,000
4. Computer classroom furniture (for 15 workstations)	<u>90</u>	<u>3,400</u>	<u>306,000</u>
Subtotal	90	44,600	4,014,000
<b>Total</b>			<b>12,042,000</b>

<sup>a</sup> For packaging and the mode of procurement see Table 3.

<sup>b</sup> Including service and support for at least 12 months for equipment and manuals and documentation in Russian and Kazakh.

**Table 3: Tentative Packaging and Mode of Procurement**

<b>Procurement Package</b>	<b>Total Cost (\$'000)</b>	<b>Procurement Mode</b>
1. Textbooks and instructional materials (30-40 contracts for different titles)	2,000	LCB/DP
2. Preparation of textbooks (40 contracts at \$5,000 per contract)	200	DP
3. Computer equipment (for MOE, RTII, 5 TIIs, 21 DOEs, IEP, and 90 schools)	4,557	ICB
4. Audiovisual equipment (for RTII, 5 TIIs, and 180 schools)	2,304	ICB
5. Language laboratory equipment (for RTII, 5 TIIs, and 180 schools)	2,674	ICB
6. Physics and chemistry laboratory equipment	1,098	ICB
7. Carpentry and metalwork equipment	1,260	ICB
8. Language laboratory furniture (for RTII, 5 TIIs, and 180 schools)	633	LCB
9. Computer classroom furniture (for 90 schools)	376	LCB
10. Instructional aids	180	LCB/DP
11. Duplicating equipment (for RTII and 5 TIIs)	175	IS
12. Computers, office equipment and vehicle for Project Implementation Unit	32	DP
<b>Total</b>	<b>15,489</b>	

**Notes:**

- DOE - Department of Education
- DP - Direct Purchase
- ICB - International Competitive Bidding
- IEP - Institute of Educational Problems
- IS - International Shopping
- LCB - Local Competitive Bidding
- MOE - Ministry of Education
- RTII - Republican Teacher Improvement Institute
- TII - Teacher Improvement Institute

## STAFF DEVELOPMENT PROGRAM

Topic	Participants		Program Duration	Cost (\$)
	Agency	Number		
External Training				
1. Comparative education systems	MOE staff	4 <sup>a</sup>	1 month	40,000
2. Educational management	MOE and RTII staff	3 <sup>a</sup>	1 month	30,000
3. Educational Management Information Systems	MOE staff handling MIS	3 <sup>a</sup>	1 month	30,000
4. Modern methods of computer instruction	RTII and TII instructors	3 <sup>a</sup>	1 month	30,000
5. Modern methods of language instruction	RTII and TII instructors	5	1 month	50,000
6. Project management	MOE project management staff	4 <sup>a</sup>	3 months	120,000
Subtotal		22 <sup>b</sup>		300,000
In-country Training				
1. Modern methods of school management	Teacher trainers and school principals	200	1 week	40,000
2. Educational Management Information System	MOE and DOE staff handling MIS	120	2 weeks	48,000
3. Modern computer applications and instruction methods	Teacher trainers from TIIs and secondary school teachers	250	2 weeks	100,000
4. Modern language teaching methods	Teacher trainers from TIIs and secondary school teachers	200	1 week	40,000
5. New methods of teaching and training	Teacher trainers from RTII and TIIs	100	1 week	20,000
6. New learner-based curriculum	Teacher trainers from RTII and TIIs	200	1 week	40,000
Subtotal		1,070		288,000
Total		1,092 <sup>b</sup>		588,000

<sup>a</sup> Including one interpreter.

<sup>b</sup> Including five interpreters.

## Notes:

- DOE - Department of Education
- MIS - Management Information System
- MOE - Ministry of Education
- RTII - Republican Teacher Improvement Institute
- TII - Teacher Improvement Institute

## CONSULTANT SERVICES

Table 1: Summary of Consulting Services

Field of Specialization	Duration (person-months)	Duty Station	Total Cost (\$)
<b>A. International Consultants</b>			
1. Consultant on Project Implementation and Equipment Procurement	18	PIU, MOE	
2. Consultant on Educational MIS	4	PIU, MOE	
Subtotal (A)	22		440,000
<b>B. Local Consultants</b>			
1. Consultants for the adaptation and preparation of software applications for the Educational MIS	25	MOE	
2. Consultants for the preparation of staff development programs and materials in:			
(i) Modern computer applications	18	MOE	
(ii) Modern methods of language instruction	6	MOE	
(iii) School management	6	MOE	
(iv) New teaching and training methods	3	MOE	
(v) Educational MIS	4	MOE	
3. Consultants in project management, including translation of equipment procurement documents	20	PIU, MOE	
Subtotal (B)	82		68,000
Total	104		519,000

## Notes:

- MIS - Management Information System
- MOE - Ministry of Education
- PIU - Project Implementation Unit

## **OUTLINE TERMS OF REFERENCE FOR CONSULTANTS**

### **A. International Consultants**

#### **1. Project Implementation and Equipment Procurement**

1. The consultant will advise and assist the Ministry of Education (MOE) in all aspects of Project implementation, including planning and implementation of Project components, planning and implementing equipment procurement under the Project, advising on questions of procurement policies and procedures, and related staff training. The consultant will:

- (i) assist MOE in establishing appropriate Project planning, monitoring, and reporting systems, and in preparing a work plan covering all Project components;
- (ii) assist MOE in detailed planning of in-country and external staff development programs, and in preparing the terms of reference for, identifying, and selecting consultants for the Project components;
- (iii) assist MOE in establishing appropriate policies and procedures for equipment procurement through international competitive bidding, international shopping, and local competitive bidding, including the preparation of standard formats, guidelines, and manuals;
- (iv) train counterpart staff in the Project Implementation Unit (PIU) and other departments and units of MOE in project management and international equipment procurement, both on the job and through specific briefing sessions; and
- (v) assist MOE at all stages of equipment procurement under the Project, including finalizing equipment lists, preparing detailed specifications, preparing tender documents, inviting and evaluating tenders, awarding contracts, arranging delivery, receipt and installation of equipment, and undertaking related follow-up.

Location and Duration: MOE. The initial assignment will be for 12 person-months. In the light of progress made in Project implementation, it may be necessary to extend the total duration of the assignment a further six months.

#### **2. Consultant on Educational Management Information System**

2. The consultant will advise and assist MOE in reviewing management information needs of MOE and the education system and preparing a framework and implementation plan for the establishment of a comprehensive computerized educational management information system (MIS). The consultant will:

- (i) review existing management information systems within MOE and the education system, review priority management information needs, and identify gaps and shortcomings in present information systems;
- (ii) prepare the framework for a comprehensive educational MIS for MOE and the Departments of Education (DOEs), including the overall structure, organization and operation of the system and the framework for data bases in the following main areas:
  - (a) budget and financial management;
  - (b) buildings and facilities;
  - (c) furniture, equipment, spare parts, and materials;
  - (d) libraries and textbooks;
  - (e) teachers and staff;
  - (f) academic programs and curricula;
  - (g) student enrollments and progression; and
  - (h) benefit monitoring and evaluation (BME) of educational programs;
- (iii) assist MOE in preparing the detailed framework and indicators for BME of education sector programs; and
- (iv) prepare an implementation plan for the establishment of MIS, including the detailed terms of reference for domestic consultants to adapt and prepare software applications.

Location and Duration: MOE, for 4 person-months.

## **B. Domestic Consultants**

### **1. Educational MIS Software Development**

3. A team of two to three consultants will be responsible for adapting and preparing the software applications for the establishment of a computerized educational MIS in MOE, for installing and testing the system, and for preparing operational manuals and guidelines. The consultants will work under the guidance of MOE staff who have been on external training programs to familiarize themselves with similar systems in other countries. The consultants will:

- (i) develop appropriate software applications for MIS for MOE and DOEs, including specific data bases on finance, facilities and equipment, libraries and textbooks, teachers and staff, pupil/student flow indicators, and the monitoring and evaluation of educational benefits;
- (ii) install and test the operation of MIS in key departments in MOE on a pilot basis, make necessary adjustments to the software indicated during initial testing, and assist MOE in installing the software in DOEs in 19 *oblasts* and Almaty and Leninsk;

- (iii) prepare operational guidelines and manuals for the users of MIS; and
- (iv) coordinate closely with the consultants preparing the MIS training programs and materials.

Location and duration: MOE, for a total of 25 person-months.

## **2. Consultants for the Preparation of Staff Development Programs and Materials**

4. The consultants will be responsible for the preparation of staff training programs and related materials in the following five areas: modern computer applications, modern methods of language instruction, modern methods of school management, new teaching and training methods, and MIS (in close coordination with the consultants responsible for MIS software development). The consultants will conduct training programs for a total of 870 staff, teacher trainers and teachers. The assignments may be awarded as one contract or as five separate assignments for the different training programs. The consultants will:

- (i) develop and prepare the training programs, with emphasis on introducing new managerial, substantive and pedagogical approaches to the different subject areas;
- (ii) prepare training materials for the courses, which can be readily duplicated and used by the Republican Teacher Improvement Institute (RTII) and Teacher Improvement Institutes (TIIs) to conduct similar courses on a recurrent basis;
- (iii) conduct training programs for 750 teacher trainers from RTII and TIIs, principals, and teachers in computer applications, language instruction, school management, and teaching and training methods; and
- (iv) conduct training programs on MIS for 120 MOE and DOE staff.

Location and Duration: RTII, for a total of 37 person-months.

## **3. Project Management**

5. The consultants will assist MOE and, in particular, the Project Implementation Unit in various aspects of Project management and implementation. The consultants will:

- (i) prepare in Russian and Kazakh detailed procedures, guidelines, and manuals on different aspects of project implementation and management, particularly those related to equipment procurement;
- (ii) assist in the preparation of detailed equipment lists, specifications, and tender documents in English, reflecting the needs of the schools covered by the Project; and

- (iii) assist in different aspects of equipment procurement implementation, including delivery arrangements, receipt and installation, and related liaison and follow-up with suppliers and their representatives.

Location and Duration: MOE, for a total of 20 person months.



**PROJECT COST SUMMARY**  
(\$'000)

Category	Foreign Exchange	Local Currency	Total
<b>A. Base Costs</b>			
1. Staff Development			
a. External Training	300	0	300
b. In-country Training	0	288	288
Subtotal	300	288	588
2. Textbooks and Instructional Materials	1,200	1,400	2,600
3. Consulting Services			
a. International	440	0	440
b. Domestic	0	79	79
Subtotal	440	79	519
4. Equipment and Furniture			
a. Furniture	0	2,383	2,383
b. Equipment	11,589	610	12,199
Subtotal	11,589	2,993	14,582
5. Implementation			
a. Project Implementation Unit Recurrent Costs	0	90	90
b. Project Facilities Recurrent Costs	0	3,960	3,960
Subtotal	0	4,050	4,050
6. Taxes and Duties	0	3,072	3,072
Total Base Cost	13,529	11,882	25,411
<b>B. Contingencies</b>			
1. Physical Contingencies	1,263	870	2,133
2. Price Escalation	604	597	1,201
Total Contingencies	1,867	1,467	3,334
<b>C. Interest and Other Charges</b>	663	0	663
Total Project Cost	16,059	13,349	29,408

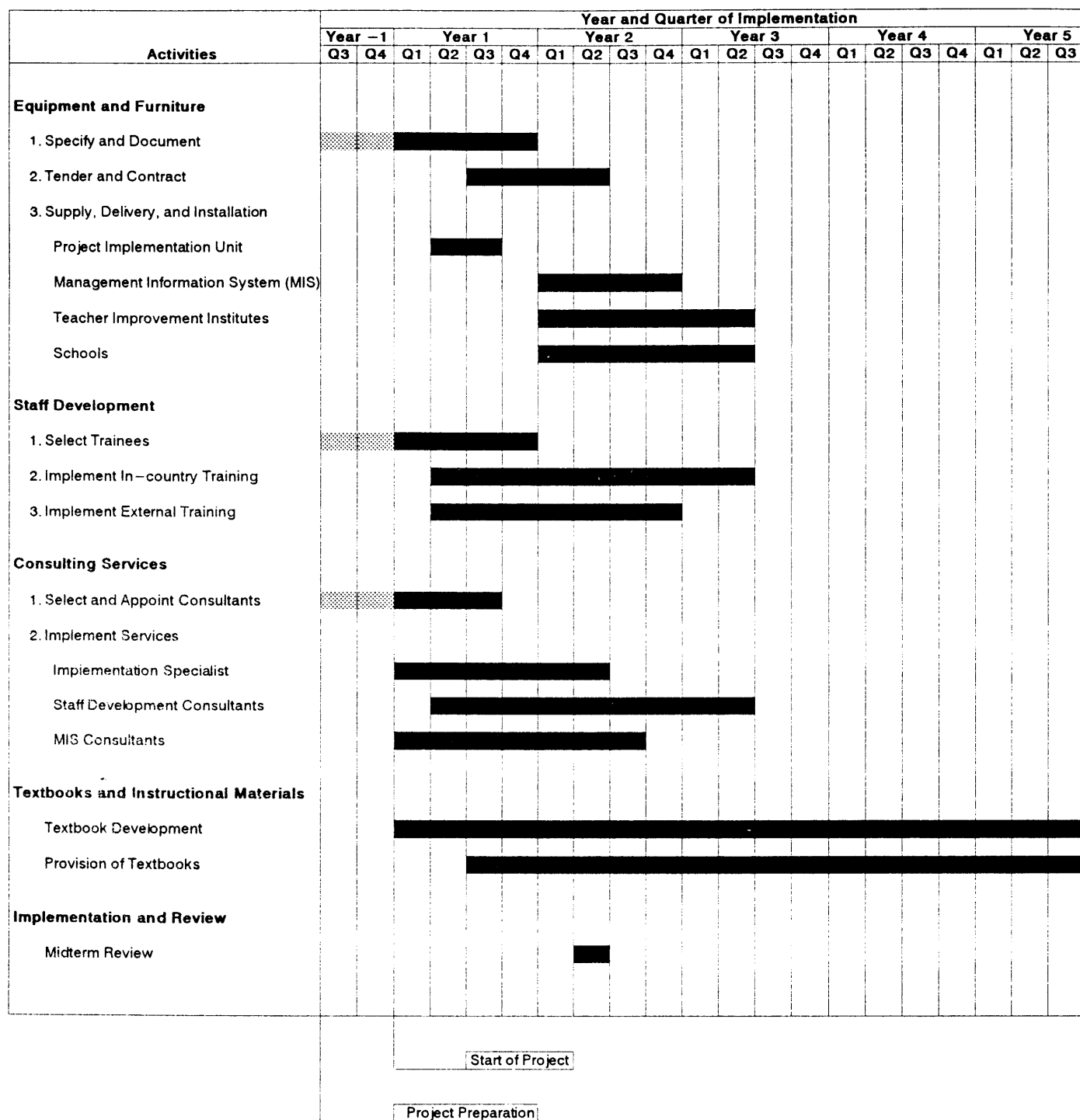
**Notes:**

1. Base costs are as of July 1995.
2. Physical contingencies are calculated at 10 percent for furniture, equipment, and textbooks, and at 5 percent for other items.
3. Price escalation is calculated at 2.2 percent per year for foreign costs. Local costs in US dollar terms are assumed to increase by the same 2.2 percent per year.

# FINANCING PLAN (\$'000)

	Project Cost			Bank Financing			Government Financing		
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total
<b>A. Base Costs</b>									
1. Staff Development									
a. External Training	300	0	300	300	0	300	0	0	0
b. In-country Training	0	288	288	0	288	288	0	0	0
Subtotal	300	288	588	300	288	588	0	0	0
2. Textbooks and Instructional Materials	1,200	1,400	2,600	1,200	1,000	2,200	0	400	400
3. Consulting Services									
a. International	440	0	440	440	0	440	0	0	0
b. Domestic	0	79	79	0	79	79	0	0	0
Subtotal	440	79	519	440	79	519	0	0	0
4. Equipment and Furniture									
a. Furniture	0	2,383	2,383	0	927	927	0	1,456	1,456
b. Equipment	11,589	610	12,199	11,589	610	12,199	0	0	0
Subtotal	11,589	2,993	14,582	11,589	1,537	13,126	0	1,456	1,456
5. Implementation									
a. PIU Recurrent Costs	0	90	90	0	63	63	0	27	27
b. Project Facilities Recurrent Costs	0	3,960	3,960	0	0	0	0	3,960	3,960
Subtotal	0	4,050	4,050	0	63	63	0	3,987	3,987
6. Taxes and Duties	0	3,072	3,072	0	0	0	0	3,072	3,072
Total Base Cost	13,529	11,882	25,411	13,529	2,967	16,496	0	8,915	8,915
<b>B. Contingencies</b>									
1. Physical Contingencies	1,263	870	2,133	1,263	569	1,832	0	301	301
2. Price Escalation	604	597	1,201	604	405	1,009	0	192	192
Subtotal	1,867	1,467	3,334	1,867	974	2,841	0	493	493
<b>C. Interest and Other Charges</b>									
	663	0	663	663	0	663	0	0	0
Total Project Cost	16,059	13,349	29,408	16,059	3,941	20,000	0	9,408	9,408

## PROJECT IMPLEMENTATION SCHEDULE



## FRAMEWORK FOR BENEFIT MONITORING AND EVALUATION

1. The Project will establish a computerized educational management information system (MIS) for the Ministry of Education (MOE). As an integral part of MIS, the Project will establish a system for benefit monitoring and evaluation (BME) of general education. BME will provide MOE and the Departments of Education (DOEs) with key data for the efficient management of the education system and in particular its resources, and for considering short-term, medium-term, and long-term policies and actions required to improve the system.

2. The BME system will be coordinated by MOE, in close cooperation with DOEs. It will include systematic data on inputs to and processes and outputs of general education. The system will provide basic data on the internal and external efficiency of general primary and secondary education, and their socioeconomic impact. Data will be entered on a uniform data base at the *oblast* level and will be coordinated and consolidated by MOE. Once the system is fully established, data entry may be decentralized to the *raion* level. The data will be gathered under the following major headings:

- (i) internal efficiency of schools:
  - (a) pupil/student flow rates: admission rate, enrollments, progression rate, dropout rate, and pass/fail rate;
  - (b) efficiency and staff load: teacher-student ratio, staff-student ratio, average class size, and average teacher workload;
- (ii) cost-effectiveness and unit costs: total cost, number of students, number of graduates, annual cost per student, cost per graduate, breakdown of school costs by budget category (staff salaries, consumable materials, maintenance, and others), and data on revenues from different sources;
- (iii) external efficiency: tracer studies and surveys of graduates; and
- (iv) social impact: data should be broken down by gender, language/ethnic group, income group, and geographical origin of the student, as appropriate, to facilitate the analysis of the social impact of education.

3. Under the Project, BME will be established for general education at the primary, lower secondary, and upper secondary levels. At a later date the system may be expanded to other types and levels of education.

4. Prior to Project implementation, MOE will compile baseline data on the schools and institutions covered by the Project to allow for comparison with BME data once MIS is operational. The baseline data will be gathered by MOE through a questionnaire given to each school and institution and will include information on facilities, equipment, staff, teachers and enrollment.