EDUCATION REFORMS IN COUNTRIES IN TRANSITION:

POLICIES AND PROCESSES

SIX COUNTRY CASE STUDIES

COMMISSIONED BY THE

ASIAN DEVELOPMENT BANK IN

AZERBAIJAN, KAZAKHSTAN, KYRGYZ REPUBLIC,

MONGOLIA, TAJIKISTAN, AND UZBEKISTAN

Contents

Abbreviations

ADB	Asian Development Bank
AZM	Azerbaijan manat
AusAID	Australian Agency for International Development
AZM	Azerbaijan manat
CIS	Commonwealth of Independent States
Danida	Danish International Development Agency
DMC	developing member country
EMIS	education management information system
ESDP	Education Sector Development Program
GDP	gross domestic product
GSE	general secondary education
JICA	Japan International Cooperation Agency
HDI	Human Development Index
HEI	higher education institution
IDA	International Development Association
IDP	internally displaced person
IMF	International Monetary Fund
NGO	nongovernment organization
OSI	Open Society Institute
RETA	regional technical assistance
T	tenge
TA	technical assistance
TEVT	technical education and vocational training
TJS	somoni
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

Note: The word dollar and the $ symbol refer to United States dollars, unless otherwise specified.

Foreword

Since they gained independence in the early 1990s, the former Soviet republics, including those in Central Asia and the Caucasus, have engaged in ambitious reforms to modernize their education and training systems. Facilitating the transition to a market-based economy and fostering national unity are among the long-term goals of these reforms. National reform efforts have encompassed all aspects of education: content and processes (removing ideological biases, modernizing curricula, introducing new teaching and learning materials, developing student assessment systems, and encouraging student-centered learning); governance and management (decentralizing sector administration, granting more autonomy to institutions, improving cost-efficiency, adopting modern sector planning techniques, monitoring and evaluating policies, and encouraging private sector and community involvement); and access and participation (protecting vulnerable population groups, providing special support to village schools, combating poverty-driven dropouts, increasing access to higher education).

The present volume comprises the edited versions of case studies on education reforms undertaken in six countries in transition. The research work was carried out between June 2001 and September 2002 as part of Technical Assistance (TA) for Subregional Cooperation in Managing Education Reforms supported by the Asian Development Bank (ADB).

The main purpose of the TA was to promote cross-border educational policy dialogue and cooperation among six developing member countries of ADB: Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan, and Uzbekistan. These countries were selected primarily because of the similar or comparable institutional, cultural, and economic legacies they inherited, from the former Soviet Union, and because of the benefits they stood to gain from policy exchange in the area of education. The six participating countries have all cooperated with ADB to strengthen their education system and other social services. Support provided by ADB has ranged from policy dialogue and advice to investment projects, intended to provide targeted support for reforming, strengthening, and modernizing education systems.

The country studies presented in this volume provide a critical analysis of the national education reform processes that have taken place in six countries in transition. The studies were undertaken as independent reviews. A team of experts conducted interviews with education sector stakeholders; analyzed legislation, regulations, and policy statements; and reviewed the major reform directions and their outcomes, with a view to drawing lessons and knowledge that can be shared with others. In each country, national workshops were held, gathering government and nongovernment education partners ranging from Members of Parliament to representatives of nongovernment organizations.

The views expressed in this report are those of the research teams and do not necessarily represent those of their institutions, national authorities, or ADB.

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AZERBAIJAN

1. Economic and Social Context

With the breakup of the Soviet Union, Azerbaijan was reestablished as an independent country in October 1991. At the time of independence, it faced a unique combination of political, military, economic, and social problems, all of which competed (along with the education sector) for public resources. The most prominent issues facing the new government are outlined below.

Loss of Markets. Azerbaijan lost many of its traditional markets for agricultural and manufactured products on the dissolution of the former Soviet Union. This led to a major decline in production, mass dismissal of workers, and closure of many enterprises.

Hyperinflation and Poverty. Between 1992 and 1994, due to hyperinflation, actual purchasing power dropped by 80% and, in 1994, gross domestic product (GDP) dropped to 47% of its 1990 level in real terms. With the assistance of the International Monetary Fund (IMF) and the World Bank, the Government stemmed hyperinflation and achieved macroeconomic stability in 1995. The country is now in a period of steady growth. Between 1996 and 2000, GDP grew by an average annual rate of 7.6%. Although prices have stabilized over the last few years, the purchasing power of the majority of the population remains limited[1] and most people have to turn to activities in the black and gray markets. A survey carried out in October 2000 found that the average monthly salary in Azerbaijan was just over AZM200,000 (about $45). Population groups with the lowest income include refugees who often live in camps and survive on international aid, ill-paid seasonal workers in rural areas, and the urban poor who live in squatter dwellings. Widespread poverty has an important effect on education. Although dropout rates are not reported in the official statistics, there is evidence that the number of pupils who drop out of school has increased considerably since 1988. The Ministry of Education (MoE) estimates that at least 20,000 students a year drop out of school before graduation, and independent researchers estimate that 13% of children between the ages of 5 and 14 have dropped out (*Ekho* 2001), mainly to work.

Human Development Index (HDI). The combination of the above pressures created difficult circumstances for many people, especially during the 5 years following independence. While during the Soviet Union era, government intervention protected the majority from extreme poverty, independence was first accompanied by economic, political, and social discord, which resulted in the breakdown of many structures in society and a worsening of social indicators. Between 1992 and 1995, the HDI fell from 0.730 (71 out of 173 countries) to

[1] The exchange rate for the US$ was AZM4,440 in 1995. It declined to AZM3,890 in 1998 and rose to AZM4,550 in 2000.

0.623 (110 out of 174). During the second half of the decade, the situation improved and by 1999 Azerbaijan ranked 79 out of 162 countries with an HDI of 0.738.

Border Conflict. The conflict between Armenia and Azerbaijan resulted in the loss of 20% of Azerbaijan's territory and a refugee problem when more than 1 million Azerbaijanis were expelled from Nagorno-Karabakh (Daghlyq Garabagh) and from Armenia. One aspect of the influx of refugees is the need for the provision of education services geared to their special needs.

Declining Role of Agriculture. Azerbaijan is shifting from a traditional agricultural economy to one dominated by the sale of natural resources. Oil and gas production now represents 68% of Azerbaijan's industrial output and 87.5% of its foreign exchange income. Agriculture accounts for 18.1% of GDP and 30.8% of employment nationally.

Slow Pace of Privatization. The Government's ability to support education depends to a large extent on the strength of the economy. As the economic situation improves, both the Government and the private sector gain increased means to finance education. One of the central strategies that the Government is pursuing to strengthen the economy is the privatization of state-owned enterprises. Since 1996, small and medium public enterprises (such as farming and retail businesses) have been privatized. However, the number of state employees has not decreased and the heavily overstaffed public services remain a burden on the treasury. To date, only a handful of the larger government enterprises have been sold to private investors. A more aggressive privatization program and a radical reduction in the numbers of state employees are among the recommendations of IMF and the World Bank.

2. Formation of a New Education Policy

Azerbaijan ushered in independence with the advantage of high literacy rates, a strong education system, and a society that valued education. Azeri policy makers have repeatedly emphasized that without a clear national education vision or program for reforming education, the education system will be unable to meet international standards and graduates will be unable to compete effectively in the global marketplace.

Major Legislation Since Independence. Over the last decade, a number of legislative and presidential efforts have been most influential in determining the shape and operation of the education system in Azerbaijan. While Azerbaijan inherited the general structure of its education system from Soviet times, the legislation has provided important directions for reforming and modernizing education. The past 10 years have seen considerable change in national education priorities as well as new laws and regulatory frameworks. Nevertheless, tradition and the vested interests of different education agencies have sometimes made it difficult to implement change quickly. People and groups who benefit under a

previous system are often reluctant to see it end, no matter how inefficient or inequitable it was.

Constitution of Azerbaijan, 1992. The 1992 Constitution specifies the following rights with respect to public education: (i) all citizens have the right to education; (ii) the state guarantees the right of free general and secondary education; (iii) the state executes control over the education system; (iv) the state incurs and guarantees continuation of education for especially gifted youth at government expense; and (v) the state establishes minimum standards in the field of education. Under the constitution, the intervention of political parties, sociopolitical societies, and religious organizations in education is illegal. Such institutions are not allowed to establish education structures in parallel with national ones. While the state language is Azeri, other languages are allowed and all citizens have the right to use their mother tongue and to choose their language of education and scientific activity.

Education Law, 1992. To implement the provisions of the constitution with respect to education, the National Assembly passed an Education Law in 1992. The Law clarified the structure of the education system and the role of personnel at different levels. It outlined the purposes, tasks, and directions for education reform. In particular, it introduced several major areas of change, including: (i) decentralization of education management; (ii) provisions allowing for education programs to be offered by the private sector; and (iii) changes in the content of the school curriculum to reflect Azerbaijan nationality and culture. The Law provided for incorporation of a market economy perspective in the curriculum, encouraged parents and communities to provide financial support for schools, and established guidelines for materials development. One major function of the 1992 Education Law was to establish norms and standards for school facilities, equipment, and personnel. However, the economic situation of the early 1990s was such that achieving many of the desired norms (such as class size, teacher workload and salaries) was impossible. The Revised Education Law, 1995 corrects these deficiencies and presents a more realistic set of goals and targets.

Revised Education Law, 1995. Revisions to the 1992 Education Law became necessary as the original law was drafted before the promulgation of the new constitution in 1995. In addition, the experience from 1992 until 1995 highlighted some shortcomings of the law and difficulties in the implementation of its policies. A major change of the 1995 law is the increase in the duration of compulsory education from 9 to 11 years. In parallel, a 1995 Decree on the Rules and Regulations of the Ministry of Education, 1995 clarified the role and authority of MoE.

Presidential Decree on a Program of Education Reform, 1998. A decree issued by the President in 1998 initiated the process of preparing a Program of Education Reform by establishing the State Reform Commission (SRC).

Presidential Decree on the Improvement of the Education System, 2000. The major goals of this Decree were to reaffirm the right to education, implement

the national education concept, ensure the training and retraining of teachers, increase effectiveness in the use of physical infrastructure and human resources, and establish the Education Problems Institute. Specifically mentioned in the Presidential Decree are that (i) MoE will be responsible for guidance and quality control over the training and teaching processes in all education establishments irrespective of type of ownership; (ii) all training and education establishments (with the exception of those under the ministries of Defense, Interior, and National Security) will be transferred to MoE; (iii) the Baku Department of Education will be abolished and its infrastructure and utilities transferred to MoE; (iv) all town and district education departments will be transferred to MoE; and (v) from 2000, funds allocated to town and district education departments will be allocated to MoE. The Decree also granted academic and financial autonomy to the leading colleges and universities. Finally, the Decree transferred the responsibility for determining college admissions from MoE to the State Committee on Students' Admission, a body that reports directly to the President. An important aspect of the Decree, the expanding role and influence of MoE, faced considerable opposition from other ministries. Consequently, a Second Presidential Decree on the Improvement of the Education System, issued in August 2000 canceled the transfer of education institutions under the responsibility of MoE.

Conception of Education, 2001. The Conception of Education document provided a framework for education reform within the overall context of fundamental changes in social, economic, political, and government structures. This document stated that education should be free of any totalitarian processes; open to scrutiny; based upon the principles of democracy, humanity, and individuals' needs; of high quality; and incorporating advances in research from the scientific and pedagogical communities for the direct benefit of teachers and students. The document also highlighted the importance for education to be closely linked to the establishment of a democratic society, to the enhancement of science and culture, and to the modernization of industry and the economic system. It acknowledged that the proposed reform orientations require a consolidation of the resource base of education and improvements in sector efficiency.

Education Sector Reform Program (ESRP), 2001. ESRP was designed to be implemented in three phases: (i) a preparatory phase that set up the legislative, economic, and information basis of the new system; (ii) a second phase, focused on short-term perspectives that facilitate the implementation of the reform; and (iii) a final phase of implementation of activities. At present, ESRP is the main policy document for the education sector. The section Priorities of the Education Sector Reform Program, below, discusses ESRP in more detail.

International Assistance in Policy Development. The formulation of policies, especially in the areas of teacher education, curriculum, and textbook development, has been influenced by several international organizations including

the World Bank, the United Nations Children's Fund (UNICEF), and the Open Society Institute (OSI).

3. Overview of Public Education

The main decision-making body in education policy is the President's Office, which operates in consultation with MoE, the Student Admissions State Committee (SASC), and the Cabinet of Ministers. MoE has primary responsibility for the implementation of education policies. There is a widespread recognition that sector management is still excessively centralized and should involve broader consultation with a variety of education stakeholders.

Structure of Public Education. Preschool education for children between the ages of 3 and 6 is offered through kindergartens. General education is organized at three levels: primary education (grades 1–4), basic (or junior secondary) education (grades 5–9), and (senior) secondary education (grades 10–11). Those graduating from general education can seek admission to either academic or vocational postsecondary education. Three varieties of vocational education are available: (i) technical occupational schools which offer 1- or 2-year programs; (ii) technical occupational lyceums which offer 3- or 4-year programs; and (iii) technical secondary schools and colleges which offer 3½- or 4-year programs. Academic postsecondary education offers bachelor's and master's degrees at both public and private institutions and universities across the country. Basic education indicators between 1995/96 and 1999/2000 are provided in Table A1.

Education Budget. The size and nature of the national budget for education remain a crucial issue for schools. The 2002 education budget represents 2.5% of forecast GDP, compared with an average 4.2% for the period from 1996 to 2000. Eighty percent of the budget is spent on salaries. Buildings reconstruction, construction of new vocational and technical schools, equipment, and teacher training facilities represented 3.3% of the total education budget in 2000 and 1.2% in 2001. A particularity of the budgeting system is that only an estimated 12% of the education budget is actually controlled and under the spending authority of MoE. MoE prepares its annual budget for the Ministry of Finance (MoF) and Cabinet review and, following parliamentary approval, funds are directly distributed through the district finance departments. Table A2 gives the budget allocation for education in local currency and US dollar equivalent, and as a percentage of the total national budget and of GDP from 1995 to 2002.

Table A1: Basic Education Indicators (1995–2000)

Subsector	Indicator	1995/96	1996/97	1997/98	1998/99	1999/2000
Preschool	Schools	1,973	1,918	1,879	1,854	1,814
	Pupils ('000s)	136.8	125.7	119.5	116.1	112.3
	Teachers	19,240	17,511	16,738	16,105	15,552
	Pupil/teacher ratio	7.1	7.2	7.1	7.2	7.2
Primary and Secondary	Primary schools	526	521	517	511	481
	Lower/general sec. schools	3,936	3,933	3,970	4,004	4,047
	Pupils ('000s)	2,167.5	2,219.0	2,271.1	2,292.9	2,300.8
	Teachers	140.0	141.2	140.8	142.4	143.0
	Pupil/teacher ratio	15.5	15.7	16.1	16.1	16.1
Technical and Vocational Secondary	Schools	238	196	191	198	181
	Students	56,635	56,629	57,807	58,677	63,254
	Teachers	8,972	9,424	9,609	10,308	10,854
	Student/teacher ratio	6.3	6.0	6.0	5.7	5.8
Higher	State-owned institutions	23	23	25	25	25
	Students	86,300	82,400	79,800	82,300	88,500
	Teachers	10,511	10,200	10,615	11,468	10,726
	Student/teacher ratio	8.2	8.1	7.5	7.2	8.3
	Private institutions	20	23	16	17	17
	Students	12,500	20,300	20,400	24,200	27,600
	Teachers	1,111	1,900	2,115	2,364	2,426
	Student/teacher ratio	11.3	10.7	9.6	10.2	11.4

Table A2: Education Budget by Year (1995–2002)

Year	Education Budget		% of National Budget	% of GDP
	AZM'000	$'000		
1995	342,269,000	74,406	17	3.2
1996	466,876,900	101,495	20	4.5
1997	523,996,600	113,912	20	4.1
1998	519,716,600	112,982	21	3.5
1999	790,406,097	171,827	22	4.8
2000	798,183,000	173,518	22	4.3
2001	978,839,000	212,791	22	
2002	1,011,000,000	219,783	21	2.5

Sources: Azerbaijan State Statistics Committee; International Monetary Fund.

Information Flows. School-level education data are gathered by local and district education departments and other ministries and committees involved in the sector. In the case of internally displaced persons (IDPs) and refugees, the data on schools, students, and teachers are provided by the State Committee on Refugees and IDP Affairs. These data are forwarded to MoE for analysis and, once analyzed, for dissemination to other government units. MoE has difficulty in getting up-to-date information on the status of and changes in schools and education programs from the regional executive authorities owing to insufficient management skills and the absence of a networked management information system. Data are often poorly managed and poorly archived.

4. Priorities of the Education Sector Reform Program

Reform Efforts and Resistance to Change. Current government efforts to reform the education sector are represented by ESRP. ESRP was initiated as a means of introducing greater flexibility to the system and improving learning opportunities and achievements. However, ESRP is being implemented at a time when the education sector is under a great deal of pressure. The economic downturn in the late 1990s resulted in a reduction in budget allocations. Attempts to adjust to and implement changes that are consistent with the new vision for the democratization and economic liberalization of Azerbaijan may face resistance and lack of comprehension from various groups. Nevertheless, there appears to be a deep commitment from the Minister of Education to press forward with the proposed reforms.[2]

A common problem is that different aspects of education reform may move at different paces. This can lead to poorly coordinated and contradicting policies, and to misunderstandings and tensions among people. In some instances, regulations may not change as quickly as in actual practice. In other instances, new regulations may not be enforced and come into actual practice. Among the central challenges of the education reform are the needs to develop stronger management capacity at all levels of the administration.

Main Directions and Priorities. ESRP acknowledged that a great deal has been achieved in advancing education in Azerbaijan: literacy levels are high; there is a well-established and extensive education infrastructure; education is open to

[2] However, the attitude of legislators sometimes undermines the implementation of education reforms, and sometimes personal relationships are more important than the implementation of effective systems. This concern was well articulated in an interview given by the head of the Parliamentary Commission on Science and Education, Prof. Sh. Asgerov, to one of the largest daily newspapers in Azerbaijan. He suggested that reform in people's attitudes toward education is necessary for national education reform to succeed. His concern was that the lack of enforcement of rules and the slow implementation of new procedures were due to interwoven personal relationships and personal motives among the leaders of government and education.

all; and there is universal access to basic education. According to ESRP, sector reform should be guided by two necessities: to educate Azerbaijan youth about their own history, culture, and traditions; and to attune education to the changes in social, economic, political, and government structures. Key priorities identified for implementation under ESRP include:

- establishing new national education standards, preparing new curricula, syllabi, and textbooks consistent with the requirements of national education standards;
- introducing new content areas and better integrating subject areas in the curriculum;
- providing more opportunities for pupils to pursue education programs and activities according to their interests and talents; identifying and developing the capacity of gifted students;
- developing education programs that promote desired values and ethics in young people;
- developing basic education and training programs designed to better equip young people for a changing labor market;
- introducing and applying new technologies to support learning and sector administration;
- developing student assessment systems;
- supporting innovation and decentralization of education management;
- developing a teacher training recruitment plan;
- developing programs for training and retraining teachers to reflect the new directions set by the reform (especially in the teaching of an integrated curriculum); and
- establishing a merit-based system for evaluating and promoting teachers.

5. Curriculum and Textbook Development Reforms

Soviet-Era Curriculum. Prior to 1991, education plans were formulated centrally with little or no regard to regional differences or local issues. Subjects to be taught and the time devoted to teaching them were determined by the central MoE in Moscow. In the regions, local ministries could make minor changes to the curriculum:[3] for example, in Azerbaijan, MoE increased the time spent on the study of Azerbaijan history and the Azeri language, and translated the curriculum and instructional materials into Azeri. Once these changes were approved by the central ministry in Moscow and the request for funding for the implementation of the curriculum was endorsed by the Azerbaijan MoF, the necessary funds were disbursed to the Azerbaijan MoE. Actual implementation of the curriculum was

[3] The curriculum is the list of subjects to be taught and the time to be devoted to teaching each subject area at each year's level. It provides the framework for teachers' allocation of time and energy.

the responsibility of individual institutions. Generally, there were few approved variations of the curriculum and what was taught in schools did not differ much across the Soviet Union. Nonetheless, even during the Soviet period, some reforms were carried out. In 1980, education institutions were granted more freedom and independence to resolve education problems. This enabled some innovations to emerge. For example, institutions provided for more in-depth studies in particular subjects and supported the establishment of studies with a particular focus or emphasis.

Independence-Era Issues and Efforts. With the breakup of the Soviet Union, the Azerbaijan education system suddenly had to fend for itself. For the previous 70 years, education leadership in the individual republics had only a limited exposure to education practices outside the Soviet Union; leadership in education had come from Moscow. Consequently, when decision making was transferred to Azerbaijan in 1992, education leaders were confronted with several issues concerning the content and structure of the curriculum of general education. These included:

- establishing a decision-making procedure for streamlining the curriculum. The curriculum for general schools at the time of independence was overcrowded, with students expected to study up to 31 subjects, and educators required to make critical choices as to what had to be actually taught;
- adjusting the curriculum and syllabi to reflect the needs of a market economy, introducing new subjects and optional courses relevant to Azerbaijan, and adopting a less rigid classification of courses and subjects;
- resolving an apparent overlap in curriculum development functions between the Scientific Methodological Center (SMC) and the Pedagogical Research Institute (PRI) and coordinating their efforts; and
- overcoming the country's limited technical capacity for curriculum development. At the time of independence, there were no staff specifically trained as curriculum developers and few educators with much experience in the area.

The reforms introduced in the early 1990s resulted in about 30 different variations of the curriculum and the establishment of new types of learning institutions, such as lyceums, gymnasiums, and colleges. The pattern of study in these new institutions was initially developed by the Education Problems Institute and presented to MoE for approval. Schools could select which curriculum plan they wanted to adopt. Soviet ideology could be removed from teaching and learning.

During the latter part of the 1990s, MoE concentrated on developing a national curriculum for grades 5–11, specifying the number of academic hours devoted to each subject for each grade and the expected learning outcomes. One prominent feature of this curriculum was that it not only addressed each subject

separately, but also the direction of education by integrating groups of subjects into a whole. The curriculum for grades 5–11 was designed to promote further integration of education subjects and allow for different ways of teaching. Following the implementation of national standards in 1999, workgroups comprising teachers and other education experts were established to develop the curriculum in basic subjects.[4] The curriculum was officially approved in April 1999 and its introduction started during the 1999/2000 school year. An ambitious timeframe has been set for the implementation of the new curriculum. However, its actual and effective introduction is jeopardized by the lack of financial resources.

In spite of the efforts made to modernize curricula and methods, Azerbaijan's education is still marked by features inherited from the Soviet education system. For example, education is mainly focused on the absorption and reproduction of facts rather than on the development of problem-solving and critical thinking skills; the content of education is predominantly theoretical and of limited relevance to everyday life; and the relationship between teachers and pupils tends to be hierarchical, the teacher being seen as the owner of knowledge and pupils expected to reproduce it, rather than personal in which teachers attend to an individual pupil's own distinct abilities and needs.

New Curriculum Development Process. The institutions responsible for curriculum development used to be SMC and PRI. Since several of their functions overlapped, they were merged in June 2000. Table A3 gives a summary of the key stages of the curriculum revision process.

The process through which the development of curriculum and syllabuses merges with textbook development and their writing is of particular interest. There is a clear contrast between the former centrally controlled Soviet system and the competitive system elsewhere. In the private sector tradition, the state provides the curriculum, the writers and publishers provide different interpretations of it, and the schools select the materials best suited for their needs. It appears that curriculum and textbook development activities are clearly separated in most western countries while they were combined under state supervision and control in the former Soviet system. In Azerbaijan, this is a critical developmental issue that needs careful consideration by policy makers.

[4] Literature, mathematics, geography, biology, chemistry, and the Azeri and Russian languages.

Table A3: Key Stages in Curriculum Revision in Azerbaijan

Stage	Outcome	Activities
1	Minister initiates reform	The Board of PRI or of SMC or the Department of General Education identifies the need for new or revised instructional materials. A recommendation is communicated to the Minister who prepares a proposal and returns it to PRI and SMC.
2	PRI/SMC develops draft curriculum	PRI and SMC consult with educators and other experts about the content knowledge to be taught and the amount of instruction time to be devoted to each topic. PRI coordinates this work and develops a draft curriculum with the help of expert committees. The Board of PRI approves the draft before forwarding it to the Department of General Education for consideration.
3	MoE reviews curriculum	An expert committee is established by MoE to discuss and review the draft curriculum. Advice on the practical implications of the draft plan is sought from SMC and its group of experts before its presentation to Cabinet.
4	Government approves curriculum	The proposal is discussed in Cabinet and, after approval, returned to MoE for implementation.
5	Expert committees develop syllabuses and teacher guides	MoE, through PRI, establishes committees in the relevant study area(s). Their task is to define the content for all subjects for each grade. These committees include academics, researchers, and practitioners.
6	Individuals develop textbooks	PRI is responsible for coordinating, monitoring, and approving textbook development. The process of selecting textbook writers is not well established. Sometimes the writers propose themselves and sometimes they are selected after open competition but they tend to be staff of either SMC or PRI. New competitive processes for commissioning textbooks have been discussed: for example, competitive processes for adopting textbooks might help attract more textbook writers.

MoE = Ministry of Education, PRI = Pedagogical Research Institute, SMC = Science Methodological Center.

Production and Distribution of Textbooks in the Soviet Era. The current textbook production and distribution system is an adaptation of the previous Soviet system. There is no private textbook publishing in Azerbaijan. Up to 1991, all textbooks used in Azerbaijan schools were either developed, published, and manufactured in Russia by Prosveshcheniyie and shipped into Azerbaijan or translated into Azeri by the textbook publishers and printed at one of the Soviet textbook printing plants in Russia or in the state-owned printing plants in Azerbaijan, which were also used for locally published books and translations.

Through its local Azerbaijan subsidiary office, the All-Union Committee for Printing, Publishing and the Book Trade (Goskomizdat, later Goskompechat) was responsible for allocating manufacturing time for textbook printing and binding machines and for securing the required raw materials. Investment in upgrading or replacing equipment at these printing plants was a ministerial rather than commercial decision: thus, much of the printing plant in Azerbaijan is old and in need of replacement. Textbook distribution was organized and undertaken by Azerkitap, the Azerbaijan branch of the Soviet book distributor, Soyuzkniga & Azcoopkitap, which specialized in distribution to rural areas.

Textbooks were uniform throughout the Soviet Union and rarely revised but they were durable, inexpensive, delivered to the schools on time, and plentiful. Schools maintained textbook libraries and lent out books free of charge. The textbook replacement schedule was every 4 years. An elaborate system, based on school enrollment data, was used to project future print runs. Elements of this system persisted in Azerbaijan until 2000. While the textbook production and distribution system was quite hierarchical, it operated successfully and every child had access to a complete set of textbooks in a usable condition at low cost.

Developments in the Textbook Industry since Independence. Since 1991, major changes affected the textbook development system:

- the script changed from Cyrillic to Roman. This, process, started in 1992 and completed in August 2001, incurred heavy costs and caused logistical problems for textbook production and teacher training;
- the language of instruction changed from Russian to Azeri;
- historical and cultural orientations shifted from Russian and Soviet to Azeri concerns; and
- new and optional subjects were introduced—in particular, the demand for foreign language courses increased considerably.

These changes, together with the severe financial constraints on the education system, have caused a serious shortage of textbooks. While the book industry in general was widely regarded as a high-priority activity and a high-performance economic sector during the Soviet period, the general picture that has emerged since independence remains characterized by the very low level of government spending on textbooks and education materials, the collapse of the textbook distribution system, crippling debts among textbook producers, a critical shortage of working capital and investment in the textbook industry, and intense competition from pirate publishers.

The Government's main effort has concentrated on introducing new textbooks and instructional materials in Azeri language. Since independence, a total of 145 textbooks for grades 1–11 have been published in the Azeri language.

By the beginning of 2001, MoE had revised 112 of them,[5] including primarily textbooks on the history, geography, and culture of Azerbaijan. In the drive to provide instructional materials in the Azeri language, 22 textbooks in mathematics, chemistry, physics, and biology have been translated from Russian.

Affordability and Accessibility of textbooks. The Education Law states that all pupils in Azeri and Russian medium schools (grades 1–4 and grades 5–9 in "incomplete" secondary schools) are to receive textbooks free of charge. In reality, however, the education budget only allows free books for grades 1–4. Most grade 1 students are supplied with new textbooks every year. Textbooks for grades 2–4 are supplied in sufficient quantities to replace discarded ones and it is estimated that about 70% of children in grades 2–4 have access to new or secondhand textbook. Many parents buy textbooks for their children either from necessity or by choice. In Russian medium schools, parents now purchase all Russian textbooks from commercial sources. Despite the provision of the Education Law, grades 5–11 students are not provided with free of charge textbooks. Local education authorities are empowered to spend money on textbooks but in the past 5 years none has done so because of budgetary constraints. No special provision has been made for the socially unprotected. In general, textbooks are more likely to be available in urban areas, especially in Baku, where salaries are higher. Price increases create inequities among individuals, schools, and regions. There is a growing gap between "elite" and "ordinary" schools as well as between urban and rural schools.

Textbook prices range from around AZM2,500 ($0.56) for a mathematics textbook to AZM14,500 ($3.24) for a grade 5 history textbook. Textbooks therefore represent a significant cost. For families outside Baku, the cost of one set of grade 9 textbooks can amount to over a third of the family's monthly income. The cost burden hits particularly hard from grade 5 onward and continues to increase throughout secondary education as the number of required textbooks increases. The average cost of a complete set of textbooks in different grades per pupil per year is presented in Table A4.

Table A4: Average Cost for Set of Textbooks per Pupil by Grade (2000)

Grades	Supplier	Price in AZM	No. of Books	Total in AZM	Total in $
1–4	MoE	3,000	4	12,000	2.68
	Private	4,000	4	16,000	3.57
5–9	Private	5,500	9	49,500	11.05
10–11	Private	6,000	12	72,000	15.07

MoE = Ministry of Education.

[5] A total of 90% of grades 1–4 and 75% of grades 5–11 textbooks have been revised; of the latter, 79% are in the humanities, and 21% in natural sciences and mathematics.

While the number of copies purchased each year by MoE has increased between 1996 and 2000, the annual expenditure on textbooks declined in real terms (Table A5). The reduction in unit cost was brought about by the introduction of competitive tendering for textbook procurement but was also the result of deteriorating standards governing the quality of the textbooks. New textbooks have a shorter lifespan resulting in a higher replacement rate.

Table A5: Ministry of Education Spending on Textbooks at Primary Level (1996–2000)

	1996	1997	1998	1999	2000
Number of textbooks	—	—	1,076,000	1,031,500	1,390,000
Average unit cost (in 1999 $)	—	—	1.18	0.92	0.68
Total Cost (in 1999 $)	1,212,000	1,039,000	1,274,000	946,000	945,000

— = not available.

Textbook Writing and Approval Process. All core textbooks for grades 1–11 require content approval from MoE. One of the characteristics of the Soviet textbook procurement system was the lack of a fixed and publicly available set of criteria or established methodology for textbook evaluation. Evaluation results and the reasons for choosing a particular manuscript or author were never made available to teachers or the general public. This, on occasion, led to suspicion of the integrity of the textbook approval system. This may not have been a major problem in the Soviet system because there was only one textbook for every subject and grade (except for experimental editions) and one or two textbook publishers supplied all the textbooks, but it is a potentially serious problem now because authors and publishers are competing for access to the textbook market and MoE is actively seeking innovative approaches to teaching.

Textbook preparation tends to be concentrated within a relatively small group of authors and there seems to be a substantial overlap between those who prepare the curriculum outline and those who write the textbooks. Authors who are not part of the established group of curriculum and textbook writers can submit their manuscripts for approval. But at present, very few alternative textbooks from new authors have been approved and authors who are not part of the established group have little chance of getting their titles approved. MoE is interested in allowing competing, alternate textbooks for each subject, giving teachers and schools the freedom to choose the textbooks they will use. But since there is no experience in this type of system in Azerbaijan, the advantages and disadvantages of open competition are not always apparent to education authorities.

Textbook Piracy. Most textbook piracy is in the form of the illegal reproduction of existing books and is characterized by lower-quality raw materials and crude binding styles. An even more basic form of piracy is simple

photocopying, where no attempt has been made to imitate the appearance of the original. Outside Baku, where formal book distribution channels have all but disappeared, parents are often dependent solely on street traders, who are likely to stock cheap pirated versions rather than the higher priced legitimate editions. Piracy reduces publishers' print runs significantly, so increasing their unit costs. In the face of intense competition from pirated editions, government-owned publishers such as Maarif and Tahsil may be unable to sell their legitimate stock and suffer serious financial losses. Indeed, many of the publishers find it increasingly difficult to gain access to the core textbook market, which has a large potential but requires considerable investment. Long-established textbook publishers are overburdened by debt and have no access to effective distribution channels.

6. Main Reforms in Higher Education

Admission to Postsecondary Education. SASC is the national agency responsible for carrying out the testing of all school leavers for admission to special secondary schools and higher education institutions (HEIs). It also determines the content of and administers the annual tests in 32 regions. SASC was established in 1992 (with technical assistance from the Government of Turkey) and a new national testing admissions system was implemented in 1994. The number of those taking the admissions test increased from 29,000 in 2000 to about 45,000 in 2001. The introduction of the SASC has severely limited the freedom of HEIs in administering student admissions but has also reduced nepotism and corruption in the admissions process. The introduction of national testing has encountered both support and opposition. With the exception of those who previously controlled the admission process and could adjust student admission decisions for non-academic (i.e., financial) reasons, most people are in favor of the system because it provides an objective admissions procedure based on merit.

Efforts to Streamline Higher Education Programs. At undergraduate and postgraduate levels, a set of minimum education requirements was established and new curricula for 180 undergraduate and 82 master's degree subjects were developed. Studies conducted by MoE indicated that the new bachelor's programs were too ambitious to cover in the required period of 4 years of study and that student's performance was actually below expectations. MoE proposed to reduce the number of undergraduate courses to 40 and to introduce a system of continuous assessment of student's performance. These moves were not popular with the majority of university lecturers and it was decided to conduct a pilot testing of the proposed changes. In 1999, several universities introduced a system of continuous assessment in a few subject areas and an experimental curriculum. MoE's assessment concluded that students had developed more positive attitudes toward studying and that their level of initiative within the instructional setting

had increased; the relationship between students and teachers had also improved with greater mutual understanding. MoE decided to accelerate the introduction of the new system. From 1 September 2001, nine leading HEIs participated in the experiment, as seen in Table A6.

Table A6: Curriculum Experiment (from September 2001)

Higher Education Institution	No. of Subjects	No. of Students
Baku State University	1	26
Civil Architecture University	4	95
Nakhchivan State University	1	15
Pedagogical University	4	107
Slavic University	2	48
State Economics University	2	38
State Oil Academy	1	29
Technical University	16	357
University of Languages	8	84
Total	39	799

Source: Azerbaijan State Statistics Committee.

Introduction of Tuition Fees and Bank Loans in Higher Education. Some HEIs have started to charge private tuition fees. The transition to a partially fee-funded education system is a major element of the education reform. Generally, the prestige and competitiveness of an HEI is directly related to the tuition fees it charges. Since the introduction of tuition fees at tertiary level, access is increasingly determined by the ability to pay; access based on merit is preserved only at HEIs that remain free of charge. Parents of many applicants have sought credit from local commercial banks to pay for their children's tuition fees. With annual interest rates reaching 20–25% (compared with 10% at the National Bank of Azerbaijan), this type of credit is expensive. As a rule, these loans are awarded only for short periods and given under a mortgage condition with the additional costs of mortgage registration and bank charges.

One private commercial bank, the Bank of Baku, entered the market by launching an education credit program in September 2001. The loan amount is based on the cost of education. The annual interest rate is lower than consumer or interbank credits and depends on the frequency of repayment (minimum monthly and maximum quarterly). No collateral is required. The procedure of credit registration and disbursement is simplified as much as possible and the maximum credit term is 9 months, i.e., one school year. When assessing credit, the bank interviews the applicant and HEI staff. The bank minimizes its risks by avoiding extending credit to first-year students on whom it has limited information. Students who fail to repay the bank are not allowed to take examinations. Although new, the loan program appears to be quite successful and the bank

expects to approve up to 300 loan applications annually. Within 2 weeks of the start of the program, more than 200 applications were submitted and a simplified registration system allowed the financing of 20 applications by the beginning of October 2001.

7. Issues in Budget Processes

Limited Role of MoE in the Budget Process. Much of the responsibility for budget preparation and disbursement of central education funds was transferred from MoE to MoF several years ago. The reason offered at the time was that MoF was better able to monitor the appropriateness of costs being incurred by education institutions.

Budget preparation within MoE is based upon requests from individual education institutions. The Department of Financial Planning within MoE develops annual budgets for state universities, technical schools, lyceums, and some other special education institutions—about 200 institutions in all. For other institutions, including the vast majority of secondary schools, the distribution of funds to secondary schools is reported to be totally controlled by MoF. The financial departments of MoF operate largely as local treasuries. They are responsible for allocating funds to individual education institutions. MoE's financial management role is limited to preparing and sending monthly order forms to MoF to initiate the transfer of funds to local treasuries. Owing to limitations in the non-cash system, funds from these accounts are generally withdrawn by accountants or directors of secondary schools or universities.

As a result of the present arrangement, according to an interview with the Minister of Education (Azerbaijani Teacher 2001), MoE controls only about 11% of the annual budget allocated to education. The remaining 89% is controlled by the financial departments of the executive authorities of Baku district and the regional administrations that report directly to MoF.

Problems posed by the current division of authority between MoE and MoF continue to be a subject of controversy. The capability of MoF to manage the education budget allocation is not in question: it is generally recognized that MoF is better equipped to manage financial disbursements. But MoE is better positioned to determine expenditure with the greatest impact to achieve its goals and to ensure the quality of instruction. As a result of the budget process, MoE's ability to use school financing as a tool for efficient control is limited. For schools and activities for which MoE has some degree of financial control, the exchange of information is more efficient. Schools funded directly by MoE collect and maintain better information about student enrollments, the number of teachers and their qualifications, class sizes, and the condition of physical facilities.

Insufficient Budget Allocations for Quality Improvement. Budget estimates are discussed with the school but, as a rule, reduced in MoE's final submission to MoF. MoF's budget allocation to MoE is typically below the

requested amount. The central Government provides funds for staff salaries and student stipends, and the budget for these items is the least subject to reduction. On the contrary, the allocation for proposed purchases of equipment and municipal taxes are reduced by 80–90%, leaving each education institution to cope with equipment procurement and taxes on its own. Since there is very limited budget allocation for the maintenance of physical facilities, parents help out by providing materials and, together with the teachers, carry out cleaning and necessary repairs and maintenance in their free time. Over the past years, funding priorities have been teacher salaries rather than non-salary components. The national budget therefore cannot support innovations, new instructional methods, and other development expenses.

MoE officials believe that schools should have their own bank accounts and be given the authority to reallocate funds between different budget headings. They also believe that schools should have the right to carry forward the balance from one year to the next. This would help avoid imprudent expenditures at the end of each year, motivated by the fear of losing unspent funds. Schools should also gradually shift to a system of mixed financing under which they are encouraged to generate additional funds to finance their development initiatives. But at present, schools have little discretion over the use of their own extrabudgetary funds; they are caught in a web of regulations regarding limitations on the use of these funds. More generally, regional and district education authorities have an important level of control over operations of secondary schools, which sometimes inhibits school administrators from taking initiatives and making decisions.

8. Issues in Recruitment and Compensation of Teachers

Low Class Size and Too Many Teachers. One of the important areas of continuing concern is the recruitment and retention of qualified teachers. MoE officials identify low teacher salaries as the cause for low teacher morale and motivation, and high staff turnover. MoE and many international observers suggest that salaries will need to rise to retain qualified teachers in the profession. As the economy improves and new employment opportunities open up for people with good education, retaining qualified teachers may become an even more serious problem. MoF has identified teachers' low productivity as a serious issue in education; it is argued that there are too many teachers, that the student/teacher ratio[6] is low by international standards, and that a 12-hour weekly teaching load is significantly below the international average. MoF would like to increase this load and reduce the overall teaching force. These moves may not be well received by teachers or by MoE, though much depends on how these changes are actually

[6] The student/teacher ratio in primary and secondary schools combined was 16:1 on average for the period 1997/98–1999/2000 (Table A1), which is comparable to (and in some cases higher than) the student/teacher ratio in Commonwealth of Independent States (CIS) countries.

implemented; if the downsizing is combined with an increase in teacher salaries, it might receive wider support.

Teacher Compensation and Conditions of Employment. Teachers complain about the low level and undifferentiated nature of their salaries, which do not reflect differences in education, experience, intellectual potential, or pedagogical practice. Delays in payment, sometimes for months, force them into additional work to supplement their salary. The Government recognizes that poor teacher compensation is a major obstacle to the recruitment and retention of new teachers and to general improvement in the quality of education. The Government has raised teacher salaries each year, though salaries are still too low to cover teachers' living expenses. Using the current exchange rate, teachers in primary education earn less than $15 per month and a vice-rector of a state university earns about $100 per month (surveys indicate that an Azerbaijani family of four requires a minimum of $170–$200 per month to maintain a basic standard of living). At present, there is a move to abolish the current salary structure in favor of a system based on teaching experience. However, many MoE officials do not support this move. They argue that salary should be based on the quality of a teacher's work and evidence of participation in ongoing in-service training because well-educated and motivated teachers deserve better pay than poorly educated and unmotivated teachers. Still, sharp debates about the basis for teacher compensation continue. There is general support nationally for basing salary levels on teaching experience although some experts argue that basing the salary level on the quality of teaching and/or the teachers' participation in in-service training would be more effective in raising teaching quality.

Low-Quality Teaching. Despite efforts by MoE to restructure teacher training and certification methods, a large number of teaches are considered unqualified or underqualified. Teacher training programs are weak, incentives for participation in in-service training activities have diminished, and conditions at the teacher training institutes are poor. Teachers attending in-service training observe that the design and execution of the training have not undergone any essential change, despite years of reform in other parts of the education system. They feel that the instruction remains teacher rather than student centered and does not provide a model for the methods that they are being encouraged to adopt in their own classrooms. During the Soviet era, teachers who improved their professional skills were provided with transport and given living expenses, a practice which had to be abandoned.

Widespread Corruption and Value Placed on Education. It is reported that a considerable degree of corruption has developed within the education sector in Azerbaijan. It is often useful and frequently necessary to pay teachers small bribes for passing exams and/or receiving high grades. The situation is such that, in a majority of cases, instead of studying, students can simply buy high grades and a "pass" in their exams. Bright, hard-working students, who are unwilling or unable to offer a bribe, might get grades lower than the grades they are entitled to.

Until the introduction of SASC in 1992, the use of bribes or personal influence to secure student admission to college was commonplace. The low quality of teaching, high dropout rates, and corruption in the system have contributed to a widespread public perception that the actual knowledge, skills, and qualifications that students receive through education are not worth much. One consequence of this suspected corruption is that Azerbaijan now relies heavily on entrance examinations to double check a graduate's knowledge and skills. If corruption is not addressed, it is unlikely that Azerbaijan education reform will achieve its goal of international integration and recognition.

KAZAKHSTAN

1. Main Features of the Transition of the 1990s

Independence in December 1991. With a total geographic area of 2.7 million square kilometers, Kazakhstan is the second largest republic of the former Soviet Union and the ninth largest country in the world. It is subdivided into five geographic regions: Western, Eastern, Southern, Northern, and Central Kazakhstan, and consists of 14 administrative units (*oblasts*), 160 districts, and 22 cities with a population of over 100,000.

Since independence, the number of people living in Kazakhstan has fallen by almost 2 million. The socioeconomic crisis resulting from the transition affected the demographic situation, reflected in increased migration and mortality, and a declining birth rate. At the time of the National Census in 1999, the population exceeded 14.9 million, of whom 55.2% lived in urban areas. Population density is low (6 per square kilometer) compared with an average of 67 in Europe. In 1999, 53.4% of the population were Kazakhs (up from 40.1% in 1989); 30.0% were Russians (down from 37.4% in 1989); and other groups constituting more than 1.0% of the population were Ukrainians, Uzbeks, Germans, Tatars, and Uigurs. The official language is Kazakh while Russian is the country's international language.

Democratization. The country's first postindependence constitution was adopted in January 1993 and its second in August 1995. The 1995 constitution granted the President broader powers over legislative areas and bodies of local self-government. The President is the head of state and commander-in-chief of the armed forces and he or she has the right to veto laws adopted by Parliament. Parliament is the highest body of representative power in the Republic, and consists of a Lower Chamber (Mazhilis) and an Upper Chamber (Senate).

Analysis of the sociopolitical institutionalization of democracy, rule of law, and "open society" processes unfolding in the country reveals some contradictions. Alongside with the indisputable positive changes (e.g., reform of legal institutions, growth of independent mass media), there are noticeable negative trends (e.g., increased bureaucracy, authoritarian governance style, and reduced possibilities for political pluralism and civil freedoms such as freedom of speech and freedom of the mass media).

Adoption of the Law on Public Associations in 1996. This law, quite liberal in spirit, sets up the legal framework for the development of, among others, nongovernment organizations (NGOs). According to official statistics, there are about 3,500 registered NGOs in Kazakhstan, most of them engaged in social sector projects such as protection of human rights, environmental safety, gender, education, culture, and protection of the disabled. Many of them are located in Almaty and other large cities. As yet, it is too early to talk about sustainable

development of civil society, and its viability as a key factor in change in Kazakhstan remains one of special concern. There are several factors (e.g., an inadequate taxation system and lack of support from the state, businesses, and the public) deterring full-scale development of NGOs and narrowing their range of possibilities. Most NGOs depend on a limited number of foreign donors.

Economic Liberalization. Kazakhstan has been implementing various programs of economic reform since 1991. However, economic growth has not been stable, ranging from growth of nearly 41% in 1995 to a contraction of nearly 24% in 1999, following the Asian and Russian crises. Kazakhstan joined the World Bank in July 1992. Initial World Bank loans (for rehabilitation, structural adjustment, and regulation of the financial sector) were granted to support the Government's efforts to develop and implement structural reforms in such key areas as privatization, reorganization of enterprises, financial sector reform, and social security. Some of the major macroeconomic measures include:

- the introduction of a convertible national currency in 1993;
- the privatization program initiated in 1991: private sector ownership has increased, especially in agriculture, trade, and public catering, reducing the share of state-run enterprises to 18% in 2000;
- financial reforms, aimed at strengthening domestic banks and attracting savings for investment;
- pension reform;
- changes in the taxation system to a more liberal fiscal policy; and
- promotion of foreign investment through a legal framework.

Social Costs. The economic crisis of the early and mid-1990s exacerbated social problems. Though average monthly earnings in current prices increased by over 187% between 1995 and 2000, incomes in real terms dropped. The overwhelming majority of the population saw no improvement in their economic situation. Unemployment rose considerably: according to official figures, in 1996, 4.2% of the economically active population was registered as unemployed; by the end of 1996, the number of laid-off and partially employed people constituted about 7% of the economically active population (though this figure fell back to 3.7% in 2000).

The social safety net disintegrated during transition. The state narrowed the range of recipients of lump-sum and social support allowances for children from the end of 1992. In 1999, 13.7% of families with children between 0 and 17 years of age received child benefit, compared with 84.2% in 1991. Allowances for single mothers and some benefits for pensioners were abolished in 1997 and 1998. The establishment of a new system of social support became a priority, the implementation of which hinged on the decentralization of social protection. Various benefits and allowances were paid from local budgets from the late 1990s.

2. Education Funding in the 1990s

Cuts in Public Spending and Coping Strategies. Despite the high priority placed on education in Soviet Kazakhstan and in independent Kazakhstan subsequently, adequate funding of education has been a constant constraint. The general economic crisis of the mid-1990s affected all sectors of the economy. After the peak of the crisis (1994–1995), which resulted in nonpayment of teacher salaries and public utility bills, the education system had to search for ways to overcome financial difficulties and diversify its sources of funding. New principles of financing were introduced by the Government to improve the efficiency of the education system along market-economy lines, including:

- a search for alternative models of financial decentralization and different sources of funding. In addition to the central government budget allocation, education began to be funded from local budgets;
- the introduction of a funding mechanism using a standard per student method;
- the introduction of education grants and preferential credits for HEI students; and
- the development of the private education sector and an increase in the number of paid education services. This was accompanied by increased autonomy among education institutions.

The above trends are largely reflected in cuts in public education budgets between 1995 and 2000, as shown in Table B1.

Table B1: Budget Allocation to Education (1995–2000)

	1995	1996	1997	1998	1999	2000
As % of GDP	4.5	4.6	4.4	4.0	3.9	3.2
As % of national budget	11.7	14.3	13.7	11.2	17.0	14.0
As % of local budget			32.3	27.7	23.1	17.0

Source: Kazakhstan Agency for Statistics.

In terms of subsector distribution of budget allocations, the share of preschool education was most affected. Its government budget allocation is disproportionate to the number of children to be educated. In 1999, this amounted to 3.5% of the total education budget while the number of children of this age group constituted 9% of the total population.

Table B2: Distribution of the Education Budget (1997–2000), T million

Level	1997		1998		1999		2000	
	Amount	%	Amount	%	Amount	%	Amount	%
Preschool and upbringing	5,148.5	7.3	3,741.8	5.7	2,235.7	3.5	2,975.4	4.1
Secondary general and primary vocational	51,512.0	73.5	48,085.7	73.7	51,455.2	79.5	57,865.3	79.6
Secondary vocational and higher professional	13,444.1	19.2	13,386.6	20.5	11,039.5	17.0	11,868.8	16.3
Total	70,104.6	100.0	65,214.1	100.0	64,730.4	100.0	72,709.5	100.0

Source: Kazakhstan Agency for Statistics.

Donor Funding. Some of the funding of education during the last decade came from external agencies in the form of loans, grants, sponsorships, and donations. International agencies supporting education projects comprise organizations with varied experiences and priorities, ranging from technical assistance for the development of government strategies and policies for reform to programs of academic exchange. Many of them started operating during the early and mid-1990s including the European Commission (EC) through its TACIS and TEMPUS programs, ADB, German Program of Academic Exchange (DAAD), American Council for Cooperation in Education and Language Studies (ACCELS), International Research and Exchange Board (IREX), UNESCO, UNICEF, British Council, Eurasia Foundation, Soros Foundation Kazakhstan (SFK). Donor assistance has made a significant contribution to the development of the education system. Two main strategies—the development of pilot projects and attempts to influence sector policies—have been used by international organizations with varying degrees of success. Priority has generally been on the inculcation of democratic values in education, management decentralization and institutional development, development and publication of new textbooks and instructional materials, and in-service training of teachers and administrators.

3. Education Policy Formulation Process

Legal and Policy Framework. The legal framework for state education policy is made up of the Kazakhstan Constitution of 1995 (guaranteeing free secondary education and broad public access to professional education), the Law on Education of 1999, presidential decrees, and ordinances and resolutions of the Government. The current education system, established by virtue of the Law on Education, is founded on the principle of continuity of the education process through four levels: preschool education and upbringing, primary and secondary education, higher education, and postgraduate education. The Law on Education also legalized the end of the state monopoly on providing education, defined a

new governance system for the education sector, and set the main priorities for reforming the education system.

During the first 2 years of independence, a set of new education goals and principles was defined and the first concepts for education sector reform in the new political and economic environment were devised. These documents, drafted by a handful of specialists, had the status of internal by-laws and have retained such a status to this day. The results of the first comprehensive analysis of the education sector were reported in the Concept of State Education Policy and in another government report, Education Reform: A Strategic Policy of Social Renovation. These documents attempt to formulate the theoretical and policy frameworks for reforming Kazakhstan's education system. Transition to a completely revamped content of education was to take place in a phased manner starting with the first grade in 1997. The 2001 Strategic Plan for Kazakhstan Development Until the Year 2010 (Education Reform Strategy section), Kazakhstan 2030, and the State Program of Education (approved in 2000) set out the long-term priorities for the education sector. The State Program of Education defined the goals, tasks, and development priorities as well as implementation modalities until the year 2005, including resources required and envisaged sources of funding.

Policy Implementation Setting. The implementation of the national education policy is a complicated political and administrative process in which the Ministry of Education and Science (MES) and its local education departments are expected to play a key role. The network of national or republican institutes provide scientific, consultative, and organizational support. These include:

- the Kazakh Academy of Education named after Altynsarin, comprising the Institute of Secondary General Education and the Institute of Professional Education;
- the Republican Scientific Practical Center Daryn, for gifted children;
- the National Center for State Standards and Testing;
- the Republican Institute of In-Service Training for Education Management and Scientific Pedagogical Staff; and
- the Republican Scientific Methodological Center for Informatization of Education.

As a rule, each of these organizations is in charge of a thematic area and acts as the major policy maker within the scope of its expertise. The mechanisms and methods of coordinating the activities of the different organizations, including ministries and departments, vary from established procedures and rules (e.g., the ministries of Justice or Finance can veto a decision) to the establishment of provisional interdepartmental coordination councils and identification of leading organizations responsible for developing and implementing certain policies (for example, the Kazakh Academy of Education is responsible for implementation of the textbook preparation program).

Weakness of Public Participation. In general, national education policy remains made at the central level by the presidential administration and ministries. They define the general principles of education management, reform strategies and priorities, and monitor the implementation of the programs. The institutions responsible for education policy development and implementation are set out in the Law on Education. MES is responsible for preparing draft official documents such as resolutions. Other stakeholders, including local authorities, may be involved in this process. Draft resolutions are prepared by MES, under the coordination of the ministries of Justice and Finance, and as needs arise, in consultation with the ministries of Labor and Social Protection, Interior, and Information. In the past, the laws, national programs, and other education policy documents of the Government were prepared by interdepartmental working groups with little input from other education stakeholders.

Public participation in education policy has mainly taken the forms of experts' meetings (representation on the various consultative bodies at pedagogical conferences, educators' congresses) and, more recently, public debates through the mass media. Public discussions were held on three draft laws on education, science, and languages, but only at their final stages of approval. Of late, the mass media have been trying to become one of the key figures in education policy making: heated discussions about textbooks, the state language, the private sector in education, and other education issues may influence or adjust government policies, if not contribute to their design. Yet the media coverage of education issues is essentially descriptive, highlighting current events and featuring interviews with officials and conflicts; more substantive and qualitative analysis of education remains insignificant.

One factor that affected the efficient implementation of many reforms is the lack of mechanisms for stakeholder participation (e.g., parent associations, students, employers, NGOs, and the mass media). The participation of civil society bodies remains weak in spite of the recent emergence of such organizations. This can be explained by the attitude of the administration (lack of appreciation of the importance of consensus building and consultation, absence of institutional mechanisms for public consultation), as well as the institutional weakness of organizations representing interest groups. Social and economic development trends, the increased volume and variety of education services, and the decentralization of education management have contributed to increase the number of stakeholders, including employers, parent associations, student and youth associations, trade unions, and local businesses. The democratization of society; the development of a market for education services; and the emergence of regional authorities, NGOs, and international donor organizations have inevitably necessitated a dialogue and search for an alternative to top-down decision making.

In Kazakhstan, while some 200 officially registered NGOs are working in the education sector, only a few of them can be considered as real agents of change and partners for policy dialogue. The development of NGOs during the

last 5 years is quite a positive step. Many of them lack experience and resources for systematic work, but some of them enjoy a high public profile, with human and technical resources of their own.

In some instances, NGOs have established themselves as credible partners of policy development. One example is provided by the Association of Education Institutions (AEI) which represents the interests of the private education sector. The AEI, established in 1995, currently unites 135 NGOs involved in education, including 69 HEIs and 46 colleges. Early on, AEI was very vocal and effective in putting on the education agenda the question of private sector development. Numerous conferences, press and TV items, and meetings with the Government, MES, and parliamentary deputies took place. In 1998, a protocol of cooperation was signed between AEI and MES, establishing a legal framework for the participation of AEI in the board of MES, in the Republican Council of HEI rectors and college directors, and in the Republican Council for licensing and state certification of HEIs and colleges. The inclusion of AEI in the working group responsible for drafting the new version of the law on education allowed for representation of private sector interests. AEI cooperates actively with other NGOs on issues of common interest (e.g., the new version of the Kazakhstan Tax Code and approaches to education privatization).

Budget Preparation. The budget is regulated by the Ministry of Finance. According to established procedures, the draft budget is prepared jointly by the MES financial department and the Ministry of Finance budget department, and is then approved by Parliament. Decisions on the size of the education budget are largely determined by the Government's economic priorities—MES has little say in this.

While many of the education financing problems were the outcome of the severe economic crisis, a number of institutional and structural features of the budgeting and financing systems impede the efficient allocation of resources. At present, because of inherent rigidities in budget allocations, the education budget does not serve as an effective instrument for setting priorities. Government policies are not always clearly reflected in budget allocations. Consequently, the Government has attempted to move in the following direction:

- transition to a per capita funding system, paying due attention to the specific conditions of some regions and to small schools to which this principle should not apply in the short term;
- development of grants and preferential credits for institutions;
- encouragement of private investment in education; and
- transparency and accountability in financial management.

Information Flows, Monitoring, and Evaluation. Information is collected and disseminated by the central planning and supervisory bodies (Kazakhstan Agency for Statistics, MES, and *oblast* education departments). There is a system of statistical reporting with established indicators according to which all education

institutions submit information to the higher authorities. Information seems to flow essentially bottom-up. Annual school reports are sent from the school to the district education department, then to the *oblast* education department for consolidation, and finally to MES. In addition to the standard reports, there are thematic reports on textbook provision, on preparedness for the next school year, and on the conduct of the School Olympiads. With respect to two programs (Vseobuch and computerization), all *oblast* education departments must report on school attendance and on the progress of school computerization on a monthly basis.

Government resolutions, orders, and MES instructions are brought to the notice of *oblast* departments of education. These are seldom forwarded to the education establishments themselves. The absence of an efficient system of information exchange (such as regular publications and sufficient numbers of collections of by-laws with experts' explanations and comments) results in low awareness of legal changes among school administrators and teachers. This in turn can lead to misinterpretation of events or to legal nihilism.

Currently, the information available does not allow for informed policy making, monitoring, and evaluation of policies. Data are not fully reliable, policy relevant, or timely. For example, there are no reliable statistics on dropout rates, academic performance, promotion from grade to grade, gender, migration, funding, and supply of services.

Developing a regular exchange of information is one of the challenges for improving the management of the education system. MES has started to set up an information network for education administration at the national, *oblast*, district, and school levels under an ADB project. Thus far, efforts have been made to equip all *oblast* departments of education and to develop the parameters for information collection. The Department of Monitoring and Evaluation was established in MES in 2001. Its very establishment reveals the need for MES to carry out such a function. Crisis management, as opposed to a practice of building national policy based on evaluation of results, was deeply rooted in MES. The Government's awareness of the importance of monitoring and evaluation also manifested itself in the establishment of the Agency for Strategic Planning, with the function of analyzing and researching the impact of national policies.

4. Constant Priority on Access to Education

During the period of transition, maintaining access to education was a constant priority of the Government. The key measures taken to enhance equal access for all categories of the population are:

- the provision of mandatory and free preschool preparation for all 5–6-year-olds (included in the Law on Education);
- the launching of the Vseobuch Program. In 1997, 27,000 school-age children did not attend school for various reasons, including poverty. In an attempt to

address the dropout and attendance issues, the Vseobuch Fund was established by setting aside 1% of local budget allocations to provide financial assistance to children from low-income families; and

- the introduction of grants and credits as a mechanism for equal rights and opportunities for HEI entrants.

Children with Special Needs. The state supports approximately 60,000 children left without parental guidance through 500 orphanages and boarding schools. Education and training of physically and/or mentally disabled children is another acute problem. According to official data, there are more than 128,000 such children (2.9% of the total population below working age in 2000) and the number of children with disabilities is increasing. Of these, 42,000 (32.8%) attend special and/or boarding schools. Government efforts are focused on pensions, social allowances, and benefits, but this problem can only be resolved through coordinated work between the ministries of Education and Science, Health Care, and Labor and Social Protection.

Other groups at risks include repatriates, homeless children, juvenile delinquents, and drug addicts. Increased drug addiction among youth has prompted large-scale government initiatives, including a nationwide program in schools on preventing the use of hazardous substances.

Table B3 provides an indication of the number of vulnerable children requiring special assistance measures.

Table B3: Children in Need of Support (1999)

Children and Teenagers in Need of Social Adaptation, Early Intervention, and Inclusion in Basic Education	Department	No. of Children
Abandoned disabled children residing in institutions and not attending school	MLSP	2,883
Children and teenagers receiving disability allowance	MLSP	41,624
Children residing in remote villages where small schools have been closed	MES	>11,000
Children and teenagers convicted of criminal offences	MoI	7,524
Children and teenagers convicted of criminal offences and not attending school	MoI	3,882
Children registered by territorial curative and/or preventative health care institutions	Health care agency	1,201,335
Abandoned infants and toddlers in orphanages		>3,000
Total[a]		1,264,366

MES = Ministry of Education and Science, MoI = Ministry of the Interior, MLSP = Ministry of Labor and Social Protection.

[a] Data on runaway children, beggars, and homeless children are not available; data on children with special education needs are presented separately.

Source: MES and UNESCO. 2000. *Promotion of Basic Education.* Project implementation report. Almaty.

Ethnic Minorities. Traditionally, great importance has been attached to meeting the education and cultural needs of ethnic minorities. As shown in Table B4, schools using Kazakh, Russian, Uzbek, Uigur, Tajik, Turkish, German, and Ukrainian as the language of instruction operate in the country, and people of 14 more nationalities are taught their native language at Sunday schools. The number of Russian-speaking schools has declined dramatically, essentially due to the outmigration of Russians from Kazakhstan. Politicians and pedagogues still consider that education in the native language and preservation of cultural identity are critical to promoting the integration into a single community of all nationalities and ethnic minorities residing in Kazakhstan. Other concerns, including curriculum revision to reflect values of peace and tolerance, appear to have received little attention.

Table B4: Schools of General Education with Different Languages of Instruction (1989–2000)

Language of Instruction	1989/90	1994/95	1999/2000
Kazakh	2,613	3,387	3,366
Russian	3,916	2,577	2,390
Uzbek	72	73	78
Uigur	9	17	14
Tajik	3	3	3
Turkish		4	
German		1	
Ukrainian			1
Total	6,613	6,062	5,852

Source: Ministry of Education and Science.

Rural Schools. An emerging government priority is the reopening and modernization of small schools that closed as a result of the rationalization process that took place between 1995 and 1997. The Government's Resolution on a Guaranteed State Minimum for the Education Organizations' Network of February 2000 provides a legal framework for the development of schools in sparsely populated areas. According to this resolution, a network of rural and boarding schools is to be brought up to national standards and an additional 411 education institutions will be opened. Compounding the access issue, the quality of education is recognized to be much lower in rural schools than in urban schools. The elements necessary for assuring education quality (i.e., availability of teachers, logistics, and teaching materials) are critically lacking in rural areas.

The need to move in this direction appears to be a result of the failure of the program for the so-called "modernization" of education institutions. The purpose of the program was to rationalize expenses for the upkeep of education institutions by enlarging class sizes and closing institutions that were not considered cost-

effective. This "modernization" led to the closure of 3,668 out of the country's 5,226 children's preschool institutions and the closure of 590 out of 8,694 small rural general secondary schools. In parallel, the restructuring of teachers' in-service training led to the closure of many teacher centers operating under district education departments and had a negative impact on teachers' performance and preparation.

The social consequences of the rural school closures were dramatic: mass migration from rural areas to larger settlements and disappearance of many villages from the map of Kazakhstan; stagnation of economic activity in agricultural areas; and hugely increased dropouts. The more recent modernization program is expected to help reverse these trends, acknowledging that a village school is not only an education establishment but also a key social institution for consolidating the local community.

5. Reform Priorities by Level of Education

Table B5 provides some indicators of the public education system by subsector.

Preschool Education. At the preschool level, following the dramatic falls in enrollment in the early 1990s, the Government established the legal basis for restoring mandatory and free preschool education for 5–6-year-olds. Three basic documents—the Concept of Preschool Training, the Law on Education, and the 1999 Resolution on Mandatory Preschool Training for 5–6-year-old Children in Preschool Organizations and Schools of General Education—set up the legal framework for the implementation of this new policy. More than 12,000 first-year preschool classes in schools and kindergartens were opened for about 70,000 children. According to official statistics, in school year 2000/01, more than 50% of grade 1 enrollees came to school already prepared, compared with 20% in 1999. The requirement for mandatory preschool education has become one of the major achievements of national education reform, Kazakhstan being the only Commonwealth of Independent States (CIS) country to legislate on the right of each child to preschool education.

Table B5: Basic Education Indicators (1995–2000)

Institution	Statistics	1995/96	1996/97	1997/98	1998/99	1999/2000
Preschool Education	Schools	5,225	3,850	1,905	1,558	1,273
	Public (%)					91.0
	Pupils	538,701	392,134	323,656	174,230	131,500
	Public (%)					94.9
	Teachers	38,264		15,473	13,822	10,330
	Pupil/teacher ratio	14.1		20.9	12.6	12.7
Primary Education: Grades 1–4	Schools	1,747	1,662	1,521	1,464	1,416
	Public (%)	98.8	98.7	97.5	97.1	97.8
	Pupils	1,367,562	1,339,964	1,289,581	1,289,563	1,261,500
	Public (%)	99.1	99.7	99.5	99.5	98.5
	Teachers	67,403	64,255	59,943	58,830	—
	Pupil/teacher ratio	20.3	20.9	21.5	21.9	—
General (primary and secondary) Education: Grades 1-11	Schools	8,730	8,632	8,294	8,284	8,208
	Public (%)	99.5	99.1	97.9	95.5	97.6
	Pupils	3,091,700	3,129,200	3,121,200	3,115,200	3,116,200
	Public (%)	99.9	99.8	99.6	99.4	99.5
	Teachers	275,900	265,100	244,700	251,800	263,300
	Pupil/teacher ratio	11.2	11.8	12.8	12.4	11.8
Vocational Schools and Lyceums, and Colleges	Schools/lyceums	404	339	307	319	285
	Students	154,300	133,100	111,000	91,500	87,400
	Teachers/instructors				7,742	7,638
	Student/teacher ratio				11.8	11.4
	Colleges	262	264	219	246	274
	Public (%)	95.8	92.8	81.7	71.1	63.9
	Students	200,400	177,700	148,200	141,300	142,600
	Teachers/instructors			12,170	11,848	11,394
	Student/teacher ratio			12.2	11.9	12.5
Higher Education	Institutions	112	111	133	144	170
	Public (%)	63.4	53.2	45.9	38.9	28.2
	Students	272,849	280,799	293,499	318,800	392,754
	Public (%)	95.3	91.1	79.9	80.0	67.7
	Teachers	28,723	29,766	24,678	27,127	26,996
	Student/teacher ratio	9.5	9.4	11.9	11.8	14.5

— = not available.
Source: Ministry of Education and Science.

General Secondary Education. Priority was placed on the development and publication of textbooks and training materials based on the new national standards for general secondary education. The revision of the content of general secondary education, begun at the start of the 1990s, was completed in 1996.

Documents such as the Regulation on State Standards of General Secondary Education, the Concept of Developing General Secondary Education, the Concept of the Content of General Secondary Education, and the Core Curriculum of General Education, approved in 1996, are illustrations of the first attempts to revise and update the structure and content of education systemically. Among the new approaches proposed in these documents were the expansion of the flexible (optional) part of the curriculum, including the possibility of introducing new courses, such as Applied Economics and Civic Education. The above documents formed a base for the development of a new generation of textbooks. The national program for textbook and training materials development and publishing was approved in 1996 and funded from the general budget supported by an ADB loan. By 2002, textbooks for grades 1–5 had been written and published in the Kazakh, Russian, and Uigur languages. According to the program implementation schedule, the transition to the new generation of textbooks will be completed in 2005/06.

The process of revising education contents is continuous and further adjustments in standards, curricula, and textbooks are badly needed. Currently, the entire structure of general education is being reconsidered with advanced discussions on the extension of general secondary education from 11 to 12 years. The draft concept of a 12-year general secondary education, proposed by MES, was discussed at the Republican Pedagogical Council in August 2001. The implications of this measure are considerable in terms of curricula, and also in teaching and learning methods, teacher training, finance, etc.

The decentralization of the school management system, begun in 1995, was viewed as an opportunity for delegating management functions from the central ministry to the local level. Yet many of the preconditions for successful decentralization have not been fully met. In particular, the decentralization process suffered from an incomplete legal framework and was not supported by the necessary human resources. A serious constraint has been the shortage of qualified education administrators at the local and school levels.

Another priority of the Government for general education has been the implementation of the "computerization" (or "informatization") program. A national program for computerization in secondary education was developed and approved in 1997. The program included the supply of computers to all schools in Kazakhstan, teacher training in information technology, use of information technology in the academic process, and development of textbooks. The National Scientific Methodological Center for Education Informatization was established together with 10 regional centers for new education technologies. Only the first item of the program (i.e., supply of computers to all schools in Kazakhstan) was actually fully implemented. The next stages of the program will encompass supplying equipment for professional education institutions, developing multimedia teaching materials, in-service training, establishing distance education

centers, and networking the education administration at all levels (institution, district education department, *oblast,* and ministry).

Professional Education. Primary and secondary professional education was defined as a priority in the 2000 State Program of Education, especially in terms of computerization, standards setting, and social assistance. The steep fall in the provision of professional education in the 1990s was the direct result of the slump in the economy. Only 282 out of 482 institutions of professional training survived the economic reforms. Student numbers decreased by 62%. At present, less than 20% of school leavers (after grade 9) acquire professional training. The decrease in the government budget has been accompanied by a sharp reduction in employers' investment in professional education. Although professional and technical training institutions are allowed to add to their budget from earnings from their own production centers, such income accounts for less than 10% of their budget. Until 1999, much nonbudget funding of professional education and training was constituted by the Employment Fund, itself accumulated from a 2% tax on industrial enterprises' income. But since then, all nonbudget funding has been consolidated into the general budget from which professional education and training is financed. One consequence is that existing equipment has become obsolete and has depreciated considerably. In addition, the quality of training has declined dramatically and organizing work placements for graduates has become a growing concern. Professional training institutions, for the most part, enroll teenagers from poor families. Finally, the collapse of the professional education subsector has cut the number of skilled young technicians and substantially increased the number of unemployed youth, generating grounds for social instability.

Despite declarations of the social significance of professional education, no tangible efforts to reform the subsector have taken place so far. Relations between education establishments and the employment sector have been quite problematic and have not appeared in the forefront of education policy. Kazakhstan has not yet developed a national policy addressing employment and education linkages and the role of professional education in the new economic environment. Among the key problems are:

- lack of mutually beneficial cooperation between the manufacturing and education sectors, which downgrades the quality of professional technical education;
- ineffective attempts to influence labor market trends through state order mechanisms and central planning ;
- the orientation traditionally adopted by technical and professional colleges toward theoretical knowledge rather than professional expertise, with no possibility of hands-on application of acquired skills and knowledge due to poor logistics and lack of partnership between enterprises and education institutions;

- lack of flexibility and inability of institutions to enter the market for education services; and
- lack of systematic monitoring and reliable forecasts of local labor markets.

Higher Education. The most successful institutional reforms have taken place in higher education. The introduction of the Law on Education granted HEIs academic freedom and laid down the legal basis for HEI autonomy. Practically all aspects of basic specialist training have witnessed great changes, mainly because of the economic conditions during the first half of the 1990s when policy makers were looking for the best ways to adjust tertiary education to the conditions of a market economy.

The most important changes that affected the subsector focused on:

- rationalization of the HEI network by merging departments and regional institutions and by converting pedagogical and technical institutes into universities;
- amalgamation of science and education resulting in the establishment of research institutes within universities;
- creation of suitable conditions for increased private sector involvement in higher education (the number of nonstate universities in Kazakhstan increased from 32 in 1994 to 122 in 2000);
- restructuring of higher education to different levels, including a bachelor's degree and a master's degree; and
- reform in admission procedures.

The first national higher education standards were adopted in 342 specialties between 1995 and 1997. Much work has been done since 1996 in determining major directions for specialist training and for broadening the profile of individual specialties. Model curricula and syllabuses have been devised to support the national standards in 229 specialties. Major steps were taken in the fundamental revision of curricula for the humanities and establishing Kazakh as the medium of instruction.

A new admissions model was introduced on a legislative basis comprising a number of government resolutions and a package of MES orders, instructions, regulations, and rules. A reference book for 1999 entrants to HEI, containing all necessary instructions and rules on the new admissions procedures, was published and disseminated widely both in Kazakh and in Russian. The introduction of national testing for HEI entrants increased transparency and accountability in the admission process. The admission of a student for a full-time course at a state-owned HEI involves the following stages: (i) the National Center for State Standards of Education and Testing conducts a comprehensive test in four subjects of the curriculum selected by MES (centrally for the unification and comparability of results); (ii) the successful candidates are awarded national certificates; (iii) the MES Contest Commission holds a competition among those

with national certificates and, based on their test results, awards them either a grant or the right to receive a state education credit; (iv) the HEI admissions committees enroll those with state education grants and credits; and (v) those who are unsuccessful in getting grants or credit certificates can enter an HEI as a fee-paying student without further examinations.

In legal terms, HEIs are now independent noncommercial education institutions with a right to self-government, independent decision making on personnel and financial matters, capacity to organize the academic process, and determination of research priorities. The law sets out the functions and competencies of HEI management and self-government bodies, and their rights and duties. HEIs' increased autonomy has touched essentially on their external activities. HEIs can provide a broad range of education services independently, establish direct links with national and international partners, enter into contracts of mutual cooperation in personnel training, conduct foreign economic activities, and establish joint ventures and small enterprises. But the real opportunities for increased autonomy remain unrealized. Autonomy has not always been accompanied by the appointment of qualified administrators or the training of existing managerial staff in strategic planning, goal orientation, interpersonal skills, improved efficiency, competitiveness, and personnel management. The predominantly authoritative management styles have not changed.

Private Education. By school year 2000/01, private education institutions constituted 3% (217) of general education schools, 26% (147) of colleges and professional schools/lyceums, and 66% (112) of HEIs. Another indicator of the importance of private HEIs can be seen in the fact that, in 1999, HEIs raised about T5 billion in tuition fees, or 35% of the national budget for education.

However, it is often argued that the quality of education has declined in the short run as a result of the intense and somewhat uncontrollable expansion of private institutions. With the growing number of institutions, it becomes difficult for students to appreciate the quality of instruction and the value of diplomas. This concern has required changes in licensing and certification procedures. Following the approval of the Resolution on Rules for State Certification of Education Organizations, HEIs underwent a certification procedure in 2001. A total of 60 HEIs out of 305 were certified. The process of certification aroused broad public response and MES was sharply criticized for the certification mechanisms and criteria selected, and the speed with which the entire exercise was conducted. Undoubtedly, this first attempt at certification was a political rather than professional action. Yet it was an important initiative and further efforts in this area are needed to ensure the quality of instruction.

6. Conclusions and Future Directions

The political and socioeconomic transformation of the 1990s set new requirements for the education system. Education reforms, covering all subsectors, started with

a revision of the role of education in the promotion of economic and social development. Alongside the positive changes of management decentralization, diversification of sources of funding, and establishment of the private sector, there has been a substantial reduction in budget allocations, a decline in the quality of instruction, and a considerable reduction in managerial capacity.

Although government policies, adopted during the last few years, make education a national priority, politicians and the public at large may not view education as such. The general course of economic and sociopolitical development of the country is taking the education system to a new stage of development and experts believe that, in both the short and long term, education will play a crucial part in bolstering the democratic gains of the last decade.

The Kazakhstan economy is recovering and stabilizing somewhat, though its dependence on world prices for oil and minerals makes for instability in economic growth. The priority sectors of the domestic economy are expanding and the measures taken to enhance investment and develop the private sector are paying off. These positive economic changes, however, have had limited impact on the reduction of social and demographic problems. Over 40% of the population are reported to live below the poverty line, while the total population is decreasing due to migration and low natural growth rates.

The economic transformation has created serious changes in the employment sector. The demand for labor has shifted from the primary industrial sector to trade, catering, communications, and financial services. The new employment opportunities are mainly in the private sector; this places increasing values on skills such as in critical thinking, decision making, and team work. The education system as a whole is still not well equipped to respond to these challenges and ensure the employability of graduates.

The deterioration of education quality has become a major problem of late. For the most part, efforts made so far have aimed at sustaining outdated Soviet education standards. As a result, the curriculum is falling short of present-day goals, i.e., failing to encourage the practical application of knowledge gained in the classroom, to promote the skills of learning, to make learning a lifelong pursuit, or to prepare school leavers for employment and for an active role in society.

KYRGYZ REPUBLIC

1. Economic, Political, and Social Reforms

Scope and Pace of Economic Reform. The Kyrgyz Republic is a landlocked country with an area of 199,900 square kilometers, 5.3% of which is forest, 4.4% water, 54.1% agricultural land, and 36.2% inhabited areas, roads, or land not used for agriculture. Almost 90% of the territory is 1,500 meters above sea level. The two main geographic areas, south and north, are divided into seven principal administrative regions (*oblasts*), which are subdivided into 40 districts (*raions*). There are 22 cities (National Statistics Committee 2001a).

During 10 years of independence, the population of the country increased from 4,502,000 in 1991 to 4,935,000 in 2001, an average annual growth rate of 0.92%. Some 35.3% of the population live in urban areas. As a result of economic shocks, the postindependence years have been marked by increased emigration, peaking in 1993 when 143,600 people left the country. A total of 65.7% of the population are Kyrgyz, 13.9% Uzbek, and 11.7% Russian. Over 90 other nationalities (including Dungans, Ukrainians, Tajiks, Tatars, Uigurs, Turks, and Germans) live in the country. The state language is Kyrgyz; Russian is used as an official language.

IMF supported the implementation of economic reforms in accordance with the Law of the Kyrgyz Republic (No. 855-XII, of 6 March 1992) on membership in IMF and the World Bank. The Government's goal is to create a market economy and to become integrated in the global economy. Fundamental changes have been necessary in all spheres of economic life to achieve this. A legal framework for a market economy, privatization, and liberalization of trade has set the foundations. A functioning private sector, a primary market infrastructure, an independent monetary policy (in 1993, the Kyrgyz Republic was the first CIS country to introduce a national currency), the restoration of economic growth, and the ending of hyperinflation are major economic achievements.

In 1996–2000, the average annual GDP growth rate was 5.5%, one of the highest in the CIS. The highest GDP growth rate (9.9%) was recorded in 1996 and the lowest (2.1%) in 1998 when the exchange rate of the som to the dollar fell by almost 50%. During the Asian and Russian financial crises in 1997–98, it became obvious that the macroeconomic situation in the country was unstable and vulnerable to external factors. This was largely due to:

- high dependency on the global financial and economic situation;
- remoteness from international commodity and financial markets;
- difficulties in economic relations with neighboring countries (e.g., customs barriers and fees for transit through Kazakhstan and Uzbekistan); and

- the threat of international terrorism and religious extremism; for example, in 1999 the intrusion of terrorists into the Batken region required major state spending.

As a result of the breakup of the Soviet Union and the economic consequences, GDP in 2001 was still 28% below that of 1991. As can be seen from Table C1, the decline in GDP continued until 1995, but from 1996 GDP steadily grew, indicating macroeconomic stabilization and positive results of the economic reforms. In 1996–2000, per capita GDP increased by 22% in real terms.

Table C1: Economic Indicators for the Kyrgyz Republic (1991–2000)

Indicator	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP index	100.0	86.1	73.5	58.5	55.2	58.7	64.8	65.8	68.7	72.0
Industrial production index	100.0	—	—	—	—	103.9	139.7	105.3	95.7	106.0
Agricultural, hunting, and forestry production index	100.0	—	—	—	—	115.2	112.2	102.9	108.2	103.9
Capital investment index	100.0	—	—	—	—	119.1	96.3	64.6	121.5	137.3
Budget deficit (% of GDP)	7.2	13.8	7.1	7.7	11.5	5.4	5.2	3.0	2.5	2.1

— = not available.
Source: National Statistics Committee. 2001. *Independent Kyrgyzstan Over the Last 10 Years: Facts and Figures.* Bishkek.

The structure of industrial production, accounting for over one fifth of GDP, has changed considerably since 1996. The value of nonferrous metals (60% of total industrial production) has risen and a new oil-processing sector has been established, encouraged by the construction and launching of several new industrial sites, including the Kumtor Operating Company (a gold-mining company that now accounts for 40% of total exports). After several years of recession, agricultural production started to grow in 1996 and by 2000 its volume had increased by nearly 30%, accounting for over one third of GDP. Overall, there has been a sustained and steady growth of agricultural production, hunting, and forestry; the drop in 1998 was caused by bad weather conditions. Investment in infrastructure has increased, and major works include the construction of Kumtor, the reconstruction of the Bishkek-Osh road, Manas airport, hydroelectric stations, electricity transmission lines, and irrigation systems.

Due to a tight monetary policy, the Government reduced inflation from 2,033% in 1991 to 9.6% in 2000, indicating a phase of economic stability and growth. In 1992–2000, prices for goods and services fluctuated: in 1992 prices for goods were growing some 23 times as fast as prices for services, but over the last few years there has been a clear trend of price and tariff increases for services.

One of the critical economic problems in the Kyrgyz Republic is the falling, but still high, budget deficit (over 2.1% of GDP in 2000). National debt servicing exceeds annual GDP and is the largest expenditure item in the state budget. A

reduction in external borrowing appears necessary to cover the budget deficit and ensure sustainable economic development. However, since 1995, there has been a steady decline in the budget deficit as a percentage of GDP as seen in Table C1.

The volume of retail trade between 1991 and 1992 dropped when economic and production ties between the constituent republics of the former Soviet Union dissolved. As well as a national currency, the Government introduced an independent monetary policy in 1993. The volume of trade started to grow, particularly from 1996. An important step in the liberalization of trade was the country's entry into the World Trade Organization in 1998. Openings to new markets for domestic products and services are now being sought. Prices of the majority of goods have been liberalized and now more closely reflect their international market value.

It was in the trade sector that privatization first took place, followed by the services sector and then industry. Privatization has led to changes in both the type and the structure of enterprises. Today, the share of the private sector in total recorded economic activity is 98.3%, compared with 55.9% in 1991, mostly owing to the creation of small businesses. In 2001, 86% of small enterprises were privately owned and produced over 85% of GDP compared with 25.8% in 1991. Liberalization of trade has stimulated growth and helped create a market economy.

Political and Administrative Reforms. The political system has changed substantially since 1991. The one-party system has been replaced by a multiparty system and, in accordance with the new constitution, power has been distributed to legislative, executive, and judicial bodies. Parliament exercises legislative power and the central and local administrations (governors of the seven regions, 40 districts, and 22 cities), appointed by the President, exercise executive power. Judicial power is wielded by the Constitutional, Supreme, Higher Arbitration, and local courts.

A legal framework for the reform of the civil service was passed in 1999. The main aim of the reform was to streamline the Government's organizational structure for greater effectiveness and closer correspondence with market reforms. The number of ministries was reduced from 15 to 12, state committees from 5 to 2, administrative departments from 9 to 5, and commissions from 12 to 8.

Public utilities and local infrastructure have been decentralized. However, the decentralization process is hampered by a shortage of financial and human resources and by an unclear separation of powers and functions between local government and central agencies.

The process of democratization has led to a complete transformation of public and political life in the country. The one-party system has been replaced by 121 political organizations, including 30, albeit still weak, political parties. A large number of civil society organizations, representing the interests of different sections of society, have been created. As can be seen from Table C2, the total number of registered public organizations and associations increased from 200 in

1991 to 2,823 in 2001. The structure of the various groups has changed: in 1991 the trade unions accounted for 47.5% of all public organizations, but by 2001 their share had dropped to 10.2%. The share of social protection organizations had risen to 57% in 2001 from 19.5% in 1991.

Table C2: Number of Registered Public Organizations and Associations (1991 and 2001)

Public Organization/Association	Year	
	1991	2001
Political	2	121
Commercial and business	12	109
Trade unions	95	289
Professional science, culture, and art	20	499
Sports	32	197
Social protection	39	1,608
Total	200	2,823

Source: National Statistics Committee. 2001. *Independent Kyrgyzstan Over the Last 10 Years: Facts and Figures*. Bishkek.

All restrictions on religious observance have been lifted. Human rights organizations have been established. The policy for the support of democratic institutions aims to ensure protection for human rights and freedom of speech. The strategy for cooperation within democratic institutions has expanded access to information, and the numerous public hearings and discussions on political issues are open to the media, NGOs, and local communities. Centers engaged in the development and promotion of native languages and focusing on the culture of different ethnic groups have also been set up.

One of the democratic principles provided in the new constitution and guaranteed through the Law on Mass Media is free speech and, with that, freedom of the press. Complete press freedom does not yet exist; more financial resources are needed together with an improvement in the legal framework and in state and public support. However, hundreds of magazines and newspapers, including those supporting the opposition, are published. The number of periodicals increased from 149 to 184, and the number of newspapers from 22 to 80, in 1996–2000 (Table C3). Now nearly 50 television and radio companies operate in the country. As an inverse image of the expansion of television and radio channels, the number of newspapers sold per 1,000 people declined from 284 to 229 in 1996–2000.

Table C3: Media and Communication Indicators (1996–2000)

Indicator	1996	1997	1998	1999	2000
Number of periodicals	149	175	164	167	184
Number of newspapers	22	37	37	67	80
Number of newspapers sold per 1,000 people	284	263	239	237	229
Expenditure on communication services (Som million)	351.9	402.7	639.0	925.7	1,162.8

Source: National Statistics Committee. 2001. *Independent Kyrgyzstan Over the Last 10 Years: Facts and Figures.* Bishkek.

Social Costs of Transition. Economic reforms have had a major impact on society by dividing it more noticeably into rich and poor. Living standards for the majority of the population remain low. In comparison with 1994, the average monthly salary in 2000 had increased nominally by more than 600% to Som1,227, but in real terms by 26.3%. During the same period, the average per capita income increased by 20% to Som708 per month, well below the minimum Som1,205 needed for subsistence. Despite steady growth since 1996, real disposable income was still just over half of the 1991 level in 2000 (Table C4). This demonstrates a significant impoverishment of the majority of the population, but especially of pensioners whose monthly pension amounted to one third of the minimum subsistence level in 2000. The ratio of the average salary to the minimum subsistence level of the able-bodied population shows that the average monthly salary is not enough to support one person, let alone a family.

Table C4: Income Indicators (1991–2000)

Indicator	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Disposable income index	100.0	50.9	40.0	42.1	39.5	39.1	43.6	49.4	51.2	54.7
Average monthly pension (Som)			57.2	146.7	197.0	246.9	307.0	377.7	385.0	462.0
Average salary (as percent of minimum per capita subsistence)					96.2	77.7	82.5	89.4	82.2	85.6

Source: National Statistics Committee. 2001. *Kyrgyzstan in Figures.* Bishkek.

At present, about 52% of the population live below the poverty line. Poverty is becoming a destabilizing factor in the social and economic development of the country. To address this issue the Government, together with civil society, the private sector, international organizations, financial institutions, and donor countries, has developed a National Poverty Reduction Strategy for 2001–2003. In addition, the Comprehensive Development Framework of the Kyrgyz Republic to 2010 identifies the reduction of poverty by one half as its primary objective.

The end of subsidies from the former Soviet Union led to a deterioration of public utilities. Many cities and villages have limited access to clean drinking

water and, especially in the remote areas, electricity. The elderly and the sick are affected most because of low pensions and high prices for medicine. Also, the disintegration of economic ties between the republics has increased the closure rate of industrial enterprises, which in turn has increased the number of unemployed. In 1996, for example, the official, registered, unemployment figure was 4.3%; by 2000 it had dropped to 3%, but many of the unemployed are not registered.

2. New Concepts and Approaches for Education Policy Development

Education and Development in a Country in Transition. Practically all the political documents of the last decade that discuss the problems of education state that the level of education is influencing the country's ability to resource its development. The Government has continued to emphasize that the best guarantee for the country's progress is its people, their level of education, professional competence, and culture. However, although the country had reasonably high levels of education at the start of the 1990s in quantitative terms, it could not compete in the world labor market in qualitative terms. To improve the quality of education, reform in the education sector became necessary.

The first issue was to redefine the goals of the new state's education system. It was recognized that the previous ideal—"the overall and harmonious development of each person"—was too general and was not the concern of the education system alone. It was therefore replaced by the goal of "developing the individual to the level of his or her disposition, abilities, and talents", thus proclaiming the learner-oriented nature of education and the need for a variety of education programs and types of education institution or organization. To achieve this, several broad strategies are being implemented, namely, the democratization of the education system, the decentralization of its management, and the creation of more flexible and student-centered education processes.

Four main defects of the education system are commonly put forward, particularly as regards its relationship with the economy and economic development. First, it is still developing very much as a domestic system and is isolated from the dynamic needs of science, technology, and industry. Second, plans and curricula are still full of outdated materials that have not kept pace with economic development in the country. This gap is especially noticeable in the field of professional education in universities, in professional and vocational training institutes, and in colleges. Third, the continuity between secondary and higher education is broken where schools react slowly to technological progress. In spite of the updating of education plans in practice, the contents of school courses remain the same, and in most schools the management style is still authoritarian and thus a barrier to the individuality of teachers in deciding the appropriate course content to help pupils in their future careers. Fourth, teacher training is only for teachers in preschool and school education and not for teachers

or lecturers in higher education who therefore have limited grounding in recent developments in pedagogy.

Legal and Policy Framework. Education was the Government's main social priority in the Soviet era and has remained so since independence. Clause No. 32 of the constitution states that each citizen has the right to free basic education. The basic principles of education policy are laid down in the 1992 Law on Education through which the state is responsible for providing education according to an individual's abilities and propensities and for controlling the activities of education institutions. The Law determines the priorities for education development, its organizational structure, access, equality of opportunity, and the free provision of basic education. It also determines the diversification of education programs and the search for new forms of training, financing, and partnerships in the provision of education services.

A National Education Reform Program was adopted in 1996. It provides the basis for updating what is taught, qualitative parameters, measures for the social protection of pupils and teachers, and the development of sustainable mechanisms for the financing of education establishments. Implementation of the reform program demands intersector cooperation to facilitate more effective use of resources and the introduction of new methods of budget preparation.

As access to education declined for some sections of the population, remedial programs were put in place. One objective of the National Program for Poverty Alleviation, 1998–2005 (Araket) is universal access to primary and secondary education and support for children of poor families to go to school. The latest program for overcoming the decline in education access is the 1999 Access to Education presidential program. Other special programs have been implemented in different areas of education: Madaniyat (1996) promotes the formation of spiritual and cultural values; Ayalzat (1997) promotes gender equality in access to education at all levels; and Jashtyk (1998) promotes the establishment of a youth policy.

To align the education system more closely with the economic needs of the country, the State Doctrine on Education in the Kyrgyz Republic was adopted in May 2000. It outlines the vision and directions of education reform in a long-term perspective (to 2025). It declares that, to create an informed and high-technology society fit for the 21st century, urgent updating of the education system is necessary. The State Doctrine sets out the main goals of education, the responsibilities of the state, and the resources needed for implementing education reform. By 2025, education's share of the annual budget is expected to increase to 6–8% of GDP, and teachers' salaries are expected to match the level of those in economically advanced countries.

Wider Participation in Policy Making. Education policy-making responsibility (as well as responsibility for overall sector reform monitoring) lies with the state central authorities: the offices of the Prime Minister and the President, and the Ministry of Education and Culture (MoEC). Sector investment

issues are the responsibility of the State Investment Committee. Sector financial and budgetary matters are the responsibility of the Ministry of Finance. Pedagogical matters are the responsibility of MoEC.

During the Soviet period, education development was characterized by stability and predictability as promoted by the central authorities. Since independence, decentralization and greater school-level autonomy have been pursued. Consequently, regions, districts, schools and institutions, community organizations, and the public today influence the formulation of education policy. The participatory dimension includes regular roundtable meetings, mass media discussions, and television and radio debates. To a certain extent this move has been promoted by international agencies, which influenced policy decisions. Both local and international experts were involved in developing national policies and programs. For instance, the 1995 ADB-supported master plan for education was discussed by the representatives of the education community, financing authorities, and NGOs before a parliamentary hearing and final approval in 1996.

Various associations, including those representing school directors, principals, teachers, and students have started to play a key role in the formulation of education policies and are actively involved in debating laws. Director and principal associations take an active part in curriculum development. NGOs are a relatively new concept in the Kyrgyz Republic. In 1993, 208 NGOs were registered, in 1996, 500, and in 2001, a little over 1,000. Most NGOs are concerned with social issues, including education. Many of them are supported by international organizations. The best-known education NGOs, which are particularly vocal in emphasizing the importance of education quality as a vehicle for improving living standards and focusing the attention on the needs of poor children, include the Meerim Foundation, Ai-Dainek Public Fund, and Kyrgyz Republic Children's Fund.

Increased Attention on Planning, Monitoring, and Evaluation. The Soviet-era system used to generate extensive statistical reports. During the early years of independence, this practice was abandoned and the functions of data collection and processing were transferred to the National Statistical Committee (NSC). NSC did not collect all necessary data and the accuracy and relevance of the data collected were doubtful. Since 1993 various external agencies have played an important role in supporting education data collection and dissemination to the public at large. While MoEC created an education management system department in 1996, data so far collected have proved insufficient for accurate planning and forecasting of education reforms. The Government monitors education sector reforms through quarterly meetings and an annual meeting attended by either the prime minister or the deputy prime minister.

International Linkages. In addition to the substantially greater influence of international agencies on national policy making, opportunities for education cooperation with foreign institutions and countries have increased since independence. Cooperation has been established with other CIS countries with

similar education concerns, including student exchange programs and the development and acquisition of textbooks and of other teaching and learning materials. International links with non-CIS countries have also been established and agreements on cooperation in education and cultural spheres have been signed with Hungary, India, Republic of Korea, and Turkey. Several joint HEIs have opened in recent years after international agreements, including AUK, Kyrgyz Russian (Slavic) University, Kyrgyz Technical University, Kyrgyz-Uzbek University, Manas, and Kyrgyz Russian Education Center (as a faculty of the Baltic University).

3. Reforms in Financial and Management Systems: Experience with Decentralization and Cost Sharing

Education Finance in the 1990s. Both total public expenditure and public expenditure on education as a share of GDP fell by half in 1990–1999 (Table C5) Public expenditure on education as a share of total public expenditure was on average 21.5%, ranging from 16.0% in 1992 to 25.0% in 1994. Such a fluctuation indicates a certain instability in financing the sector, for which there are a number of reasons—the main one being high inflation in 1991–1996. Inflation meant a decline in real expenditure on education, though this decline was uneven across the sector.

Table C5: Public Expenditure on Education as a Share of Total Public Expenditure and GDP (1990–1999)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
GDP (Som million)	43	93	741	5,355	12,019	16,145	22,467	30,686	34,181	48,321
TPE (Som million)	16	24	234	1,256	1,927	4,610	5,216	6,696	7,298	9,042
PEE (Som million)	3	6	37	227	731	1,065	1,228	1,514	1,682	1,892
TPE as % of GDP	37.6	26.4	31.5	23.4	23.4	28.6	23.2	21.8	21.4	18.7
PEE as % of GDP	7.5	6.1	5.0	4.2	6.1	6.6	5.5	4.9	4.9	3.9
PEE as % of TPE	19.9	23.0	16.0	18.1	25.0	23.1	23.5	22.6	23.0	20.9

GDP = gross domestic product, PEE = public expenditure on education, TPE = total public expenditure.
Source: Ministry of Education and Culture/UNESCO. 1999. *Education For All: Kyrgyz Republic Country Report.*

Increased Reliance on External Support. With the dramatic cuts in public spending, the Government has encouraged the financing of education from international organizations. Organizations such as ADB, European Commission, Danida, Soros Foundation, UNDP, UNICEF, and USAID have played an important role in shaping developments in the education system since 1993. This trend has increased the dependency, both financial and technical, of the education sector on external resources.

Introduction of Fees in Secondary Education. As a result of declining state funding, school directors were forced to start collecting fees from parents without any formal legal basis. Subsequently, school fees were introduced to finance building maintenance, teaching and learning materials, and library resource rental. MoEC developed criteria for calculating charges for different types of education services (user charges, voluntary payment for additional education services, and the collection of rental fees for the use of school libraries) and ran a pilot project in 14 districts. The level of user charges per student per year was set at Som160 in cities and Som100 in rural areas. The pilot project helped develop and test government regulations on (i) public funds for the support of education institutions, (ii) boards of trustees of education institutions, and (iii) school library stocks. Over 1,000 public funds, created during the pilot project and registered at justice departments, helped schools collect fees from parents in special accounts to give targeted assistance to socially disadvantaged children and support development of the education system. Public funds are managed by a board of trustees consisting of representatives of *ayil okomotu* (village governments), parents, the community, and NGOs. Following the success of the pilot project and formalization by government decree, public funds are to be established throughout the country.

Private Funding of Higher Education. With the steep decline in education's share in total public expenditure, securing alternative sources of finance became essential. Higher education funding changed in 1995 when HEIs were allowed to levy tuition fees to finance development expenditure, repair and maintenance, and equipment. Reduced state budget allocation resulted in outdated equipment and library stocks, and deterioration of physical facilities. Tuition fees helped increase teacher salaries, replace old equipment, and improve physical facilities. The move toward private funding of higher education has been relatively rapid. At present, about 80% of higher education expenditure is funded from nonstate finance. Yet higher education still suffers from financial difficulties. A government decree imposed that 50% of HEI revenues be paid to the state; this caused serious problems in 1999. After strong protests by HEIs, the amount was reduced to 30%, which still somewhat undermined HEI development plans.

Management Decentralization. Decentralization of basic education management (and the simplification of management structures) was carried out between 1998 and 2000 in several stages. The main measures included the reduction of management staff at the central level by 30% and the closure of several school inspection offices and *raion* (district) education departments in several regions. While the content of education, curriculum and education program development, textbooks, and evaluation remained the responsibility of central management, the responsibility for funding, procurement of equipment and of teaching and learning materials, and the authority to recruit and keep staff were transferred to local authorities.

In January 2000, the three-tier management system (from the ministry through the regional education departments down to the district education departments) was replaced by a two-tier structure with a direct line from the ministry to the district education departments. The *oblast* education departments were replaced by education development centers responsible for teacher support and training. Most of the responsibilities of the regional education departments were transferred to district departments

After one and a half years of testing, the exercise was abandoned and *oblast* education departments were restored as structural subdivisions of MoEC in August 2001. Clearly, district level authorities were not well prepared (nor perhaps willing) to assume new responsibilities. Growing discontent was voiced as regards the performance of important functions, such as collection and payment of teacher salaries and selection and placement of teachers. The limited management skills among school principals and local authorities pose a threat to the institutional changes and decentralization efforts. The learning of new tasks, organizational structures, and management mechanisms is proceeding with difficulty. MoEC's decision to modernize and democratize management styles has faced considerable resistance from within the system. The concepts of self-governance and decentralization do not easily take root and are often viewed in a negative light by educators and, sometimes, the population at large. To many, decentralization is associated with lack of support from the central authorities and the impoverishment of education.

4. Reforms in Preschool and General Secondary Education

Table C6: Basic Education Indicators, 1995–2000

Subsector	Indicator	1995/96	1996/97	1997/98	1998/99	1999/2000
Preschool Education	Schools	456	449	423	418	420
	Public (%)	100	99	98.6	98	98.6
	Pupils ('000s)	46.1	47.3	46.1	46.6	45.0
	Public (%)	100	99.6	99.0	99.0	99.0
	Male (%)	56.4	56.6	56.4	56.6	51.3
	Teachers	3,044	2,903	2,722	2,605	2,482
	Pupil/teacher ratio	15.1	16.3	16.9	17.9	18.1
Primary Education: Grades 1-4	Schools	108	114	116	120	123
	Public (%)	96.3	94.7	95.7	97.5	98.4
	Urban (%)	9.7	10.5	13.8	12.6	9.0
	Pupils ('000s)	9.0	10.0	12.1	12.7	12.1
	Public (%)	97.7	96.8	97.8	99.1	99.0
	Dropout rate (%)			0.2	0.17	
	Teachers	471	521	627	661	627
	Pupil/teacher ratio	19.1	19.2	19.2	19.2	19.3
General (primary and) Secondary Education: Grades 1-11	Schools	1,886	1,915	1,940	1,967	1,985
	Public (%)	99.0	98.7	98.6	98.7	98.5
	Urban (%)	19.9	19.0	19.0	19.2	18.8
	Pupils ('000s)	1,002.4	1,039.9	1,074.5	1,097.6	1,111.5
	Public (%)	99.9	99.8	99.8	99.8	99.8
	Dropout rate (%)	1.6	0.6	0.9	0.7	0.8
	Repetition rate (%)	5.5	6.1	6.3	5.5	5.2
	Teachers	67,961	67,210	67,834	69,604	71,581
	Pupil/teacher ratio	14.7	15.5	15.8	15.8	15.5
Special (secondary) Education	Schools	54	55	53	53	53
	Pupils	29,374	27,544	27,108	26,781	26,585
	Male (%)	37.0	36.2	37.0	35.0	35.0
	Teachers	2,610	2,416	2,384	2,218	2,223
	Pupil/teacher ratio	11.3	11.4	11.4	12.1	12.0
Vocational Education	Institutions	113	113	113	113	113
	Urban (%)	44.0	44.0	44.0	44.0	44.0
	Students	32,005	26,488	25,099	25,469	25,588
	Male (%)	62.3	62.2	64.5	65.4	62.7
	Teachers	3,371	3,033	2,942	2,952	2,903
	Student/teacher ratio	9.5	8.7	8.5	8.6	8.8
Higher Education	Institutions	32	44	54	41	39
	Urban (%)	78.0	73.0	78.0	68.0	67.0
	Students	64,641	77,838	97,755	129,712	159,209
	Public (%)	88.5	85.6	88.5	93.0	92.0
	Male (%)	49.3	49.0	49.3	49.3	50.0
	Teachers	4,950	4,537	6,101	7,710	8,383
	Student/teacher ratio	13.1	17.2	16.0	16.8	19.0

Preschool. The preschool subsector suffered most of all. During the Soviet period, the majority of kindergartens belonged to state enterprises and collective and state farms: in 1991 there were 1,696 infant schools, of which 404 belonged to the state and 1,292 to enterprises. With the breakup of the Soviet Union, the majority of these enterprises became unprofitable and could not finance their kindergartens, with the rural areas suffering most. The Government took steps to protect the preschool infrastructure through the 1995 Presidential Decree on Urgent Measures Providing Conditions for Further Use of Social Facilities, which prohibited the sale and improper use of kindergarten buildings. The Parent and School Program was introduced in 2000 to 70 preschool establishments to train about 2,000 parents of some 1,500 preschool children; it was a pilot program aimed at providing education opportunities for younger school-age children through community involvement. The number of pupils enrolled in preschool institutions has stabilized since 1995.

Transition to Comprehensive Schools. The transition to comprehensive schools, i.e., schools offering the full primary and secondary cycles from grade 1 to grade 11, was accelerated. Both the number of schools and the number of children enrolled in comprehensive schools increased: in 1998/99 there were 1,975 schools attended by 1,103,600 students, whereas in 1990 there were 1,728 comprehensive schools with 934,600 pupils.

Diversification of Secondary Institutions. A major trend of the transition period has been the diversification of education institutions and programs. New types of schools—gymnasiums, experimental schools, lyceums, and specialized schools—have thrived since independence. These "innovative schools" account for 17.9% of the total number of schools and 10.6% of the total number of students. Most graduates of innovative schools have shown a high level of academic achievement in the School Olympiads and Testing of Graduates tests. Over half (and practically all in mathematics, foreign languages, and computer science) of the winners at the School Olympiads came from new types of school. These schools have some financial independence that enables them to attract the best teachers thus increasing the level and quality of education substantially. Good education levels are also the result of a wide range of special courses offered in these schools together with additional programs.

Rising Urban-Rural Disparities in Secondary Education. The village school plays an important role in the national education system. Today, they number a substantial 1,648 (83% of general secondary schools) with 787,500 pupils (71% of general secondary school enrollment). The reforms have led to changes in village schools, which have become more dependent on regional governments for financial support. However, they have not benefited from this change: budget allocations have dropped, resulting in a lack of textbooks and learning materials, a shortage of teachers, and rapidly deteriorating physical facilities. MoEC test results show that every second rural student failed the Kyrgyz language test, twice the city rate, a ratio repeated in the mathematics test

and the living skills test). This rural-urban difference in education achievement, though evident in the past, has worsened in recent years. The reliance of village schools on the economic capabilities of the community, on political decisions, and on the competence of local authorities, has clearly increased their vulnerability and worsened their performance.

New Concepts of Quality. New education standards and curricula have been set. Nationwide competitions for the development of school programs and textbooks have been periodically carried out. Between 1991 and 2000, 251 new titles were developed and 7,527,000 copies distributed. Both core and optional subjects can be taught in schools, rendering the curriculum more flexible and geared to local needs. The core component offers a uniform education. Its purposes are to ensure students' awareness of cultural and national values and to develop the personal attributes needed by society. The optional component, developed by regional education centers, district (or city) education departments and schools, and accounting for 10% of the curriculum, satisfies special needs and interests of individual regions and communities. For example, in Issyk-Kul region, a major tourist area, the regional education departments have included two basic courses on tourism and ecology. Individual schools may also include additional education services, classes, and elective courses to reflect the demand of students and parents. Most school optional component hours have been allocated to additional language studies, computer science, and mathematics.

Table C7 shows a comparison of curriculum content before and after 1991. The number of hours for language studies (introduced in 1992) has increased, and new subjects (such as Introduction to Economics, Our Country, Ethics, and Computer Science and Technology) have been added. The number of hours devoted to labor-training courses has fallen significantly.

Table C7: Comparison of Curriculum Content Before and After 1991

The concept of instructional quality and tools for assessing quality also changed. In the preindependence system, the basic indicator of quality was academic achievement as measured by examination results. Now, a range of other indicators (such as teacher performance, attendance, quality of teaching and learning materials, and appropriateness of the learning environment) is being

taken into consideration. Complaints with respect to the quality of general secondary education are common. The number of pupils who achieve high marks ("excellent" and "good") has fallen every year. Many graduates fail to achieve high enough grades to enter university: all universities are dissatisfied with the quality of the preparation of entrants.

Increasing Costs of Education and Declining Attendance. Economic difficulties have made access to education an emerging concern. Compounding declining incomes, the direct costs of education (textbooks, school uniforms, school meals, fees, etc.) increased dramatically. In 2000, the cost of one complete set of textbooks for grade 1 was Som160, for grade 5 Som220, and for grade 11 Som430; the cost of a school uniform was Som240–480; those figures should be compared with the minimum monthly wage of Som150. At the beginning of the 1996/97 school year, 16,500 children were out of school, mainly because their parents could not afford it. In addition, some boarding schools closed and school transport in remote areas was discontinued. A number of measures were taken to remedy the situation, including the provision of clothing, footwear, and education materials. According to official figures, the number of children out of school declined steadily, to 3,500 in 2000/01. However, the problem of irregular school attendance due to poverty remains significant.

Status, Compensation, and Training of Teachers. Cuts in state funding also resulted in reductions in teachers' salaries in real terms, and regular delays in the payment of teachers' salaries. The average teacher salary remains one third to one half of the minimum subsistence level. Because of the low salary (Som400–500 or $10 per month), only 30% of graduates from teacher training institutes enter the teaching profession. Consequently, within the last 10 years, an increasing number of retired teachers have started working again in schools; the average age of teachers is now 45–50. The shortage of teachers is especially noticeable in basic subjects such as chemistry, physics, mathematics, history, geography, Kyrgyz, Russian, and English. Teachers have almost no opportunities for further training both because they cannot afford it without government support and because training opportunities are limited.

Growth of Private Education. The increase in the number of private schools has contributed to easing the burden on the state budget. As shown in Table C8, enrollment in private schools, including Kyrgyz-Turkish schools, has expanded rapidly, although it remains an urban phenomenon. The popularity of the Kyrgyz-Turkish lyceums is due to the combination of Turkish and Kyrgyz education programs and the teaching of several subjects (e.g., mathematics, physics, biology, and chemistry) in English. With the establishment of private education it has become possible to establish education institutions along religious lines. Several Muslim and Christian schools have opened during the past 10 years, while universities are now allowed to accept money from religious organizations.

Table C8: Emergence of Private Schools (1992–2000)

Year	Private Institutions		Private and State Kyrgyz-Turkish Lyceums		State Kyrgyz-Turkish Lyceums	
	Schools	Students	Schools	Students	Schools	Students
1992	0	0	5	216	1	24
1993	3	287	8	712	1	64
1994	7	376	10	1,242	1	81
1995	19	1,774	11	1,659	1	78
1996	25	2,568	11	2,187	1	64
1997	29	2,563	11	1,935	1	70
1998	25	2,490	11	1,912	1	90
1999	25	2,490	11	2,244	1	117
2000	27	4,901	11	2,663	1	141

Source: Ministry of Education and Culture. 2001. *Secondary Schools of the Kyrgyz Republic: Annual Statistical Review.*

Increased Community Participation. Parental participation within education is encouraged: boards of trustees have been set up in schools. They typically consist of parents, representatives of village authorities, women's councils, councils for the elderly, and NGOs, thus engaging all groups of local society. The boards can decide on education content, extracurricular activities, physical facilities, and staffing policy and seek new sources of funding. Some of the progressive education institutions have started to involve students in school activities by creating student self-management bodies, school parliaments, debating clubs, and student associations. Responsibilities for school construction, maintenance, and repair have been delegated to the local administration. As the result of a joint effort of regional governments and communities, between 1992 and 2000, 187 new schools with 59,800 places and 187 extensions to existing schools with 25,700 new places have been constructed.

Language of Instruction Issues. The education policy guarantees cultural and linguistic freedom, and the language policy gives students an opportunity to receive their education in their mother tongue. Within general education, classes are conducted in four languages: Kyrgyz, Russian, Uzbek, and Tajik. The main language of instruction in HEIs is Russian. The number of schools for each language of instruction is given in Table C9, and Table C10 provides the number of students in different categories of schools.

Table C9: Number of General Secondary Schools by Language of Instruction (2000)

Language of Instruction	Number of Schools
Kyrgyz	1,313
Kyrgyz and Russian	294
Uzbek	148
Kyrgyz and Uzbek	62
Russian	147
Uzbek and Russian	17
Tajik	4

Source: Ministry of Education and Culture. 2001. *Secondary Schools of the Kyrgyz Republic: Annual Statistical Review*.

Table C10: Number of Students in School by Year and Language of Instruction ('000)

Year	Total Number of Students	Language of Instruction							
		Kyrgyz		Russian		Uzbek		Tajik	
		Number	%	Number	%	Number	%	Number	%
1991	941.7	575.4	61.1	248.7	26.4	114.9	12.2	2.6	0.3
1992	937.7	587.9	62.7	230.7	24.6	116.4	12.4	2.7	0.3
1993	933.1	593.6	63.6	218.6	23.4	118.2	12.7	2.7	0.3
1994	934.5	605.3	64.1	213.6	22.6	121.7	12.9	2.8	0.3
1995	968.0	613.9	63.4	223.8	23.1	126.9	13.1	2.9	0.3
1996	1,002.4	633.9	63.2	234.2	23.3	131.3	13.1	3.0	0.3
1997	1,039.9	671.9	64.6	225.0	21.6	136.8	13.4	3.0	0.3
1998	1,074.5	694.1	64.6	233.4	21.7	143.8	13.4	3.1	0.3
1999	1,097.6	698.4	63.6	248.9	22.7	147.0	13.4	3.3	0.3
2000	1,111.5	704.7	63.4	252.7	22.7	150.9	13.6	3.2	0.3

Source: Ministry of Education and Culture. 2001. *Secondary Schools of the Kyrgyz Republic: Annual Statistical Review*.

National minorities demand more autonomy within education and increased the use of their mother tongue as the language of instruction. Various cultural centers opened during the years of independence to support these demands. However, administrative and financial burdens involved by the language policy are considerable. A major concern is the limited amount of teaching and learning materials published in national languages, including Kyrgyz. The situation for students in Uzbek schools is quite difficult, too. Previously, teaching and learning materials in the Uzbek language were available in Uzbekistan. But with Uzbekistan's recent adoption of the Roman alphabet for the Uzbek language and a new 12-year education structure, there are now considerable limitations in teaching in Uzbek. The Government's education language policy has been criticized, often in a context of ethnic tensions. Frequent debates are held on this

issue and recent discussion has focused on readopting Russian as the official language, although many believe that this would threaten the independence and cultural legacy of the Kyrgyz people.

5. Reforms in Professional and Higher Education

Growth and Regionalization of Higher Education. Dramatic changes have taken place in higher education. Since the restructuring and modification of education establishments at different levels in the early 1990s, the number of HEIs has increased from 23 in 1991 to 39 (enrolling about 160,000 students). The number of students educated beyond secondary level increased from 1.3% to 2.3% of the total student population over 1990–2000 as a result of the greater number of private schools and the establishment of subdivisions and units of former HEIs in the regions. While, during preindependence years, HEIs were concentrated in Bishkek, over 1990–2000, HEIs were established in practically every region; as a result, almost half of the student population is outside the capital. The number of education specialties has doubled. Private institutions have been established: 15% of students are educated in 14 private universities. The administration of HEIs also changed during the 1990s: institutions now enjoy more academic freedom; boards of trustees have been established in several of them; and many developed linkages with international education institutions.

Ongoing Concerns over Quality and Employability. The increase in the number of HEIs and the differences in their status have encouraged competition between them, promoting modernization of education programs. Yet the quality of education provided and, consequently, the employability of graduates are open to question. HEIs continue to train specialists, especially economists and lawyers, in excessive numbers, irrespective of the real needs of the economy. The most popular choices of students are economics, finance, and law followed by English, sociology, and political sciences. Over 35% of the 159,209 final year students graduated in law and economics in the 1999/2000 school year. Meanwhile, training of agricultural specialists has declined sharply. Figures for those aged 15–19 show that 3% of those employed in the agriculture sector are graduates, while 40.5% of those employed in the finance and credit sector are graduates. Table C11 shows changes in student numbers in four selected subject areas for 3 school years.

Table C11: Higher Education Institutions—Number of Students in Four Subjects

Subject	Number of Students per School Year		
	1995/96	1996/97	1999/2000
Law	4,390	7,933	26,904
Economics	8,346	12,272	29,658
Agronomy	586	839	415
Zoology	708	524	268

Source: State Investment Committee. 2001. *The State and Approaches to Education System Development in the Kyrgyz Republic, 1991–2001.*

Entrepreneurship Development Efforts. The economic reforms resulted in the closure or restructuring of enterprises and massive job losses. Various retraining courses are offered by the Ministry of Labor and Social Protection to help the unemployed acquire new skills and increase their chances of employment, though the formal state-supported vocational education and training (VET) system has proven slow in responding to new market conditions and changing demand. Some private education institutions and training centers have emerged in response to the demand for new skills. Over 90 different types of VET programs for the unemployed (during 2000, over 5,000 people attended, of whom 3,200 were unemployed) are conducted in 106 vocational and technical training institutions and 32 other state- or privately owned institutions. Most of them provide advice on small business development, entrepreneurship, and marketing. A network of "business incubators" has been set up in seven VET institutions. Their main purpose is to train adults in entrepreneurship and to provide technical and financial assistance for setting up small enterprises. On-the-job professional training is clearly a good investment, though cooperation between education institutions and enterprises remains limited. Complicated tax legislation and accounting procedures are also detrimental to private firms' investment in training.

Conclusions and Future Directions. Various positive trends can be discerned in the education sector, including the democratization of education, a concern for efficiency and financial sustainability, active participation of communities and civil society bodies, and cooperation with international organizations.

While attempts at modernizing management structures and processes have been constant during the past 10 years, they have not yet produced their expected benefits for a variety of reasons, including poor planning, inadequate assessment of local capacities, and resistance to change. The incomplete—and in some instances aborted—modernization process constrains the potential for reforming the sector. It is expected that in the near future, efforts will focus on management structures, autonomy of institutions, further support to private education, and mechanisms for assuring the quality of education through attestation,

accreditation, monitoring, and testing. In parallel, the Government will likely continue its efforts toward revamping education content and creating the conditions for quality education. Other developments will include continued efforts to integrate the Kyrgyz education system into the global education system.

MONGOLIA

1. Economic, Political, and Social Transition

Background. Mongolia is the world's largest landlocked country with an area of 1.5 million square kilometers consisting mainly of high plateaus, and the Gobi desert in the southeast, and with a total population of over 2.8 million. It has bitterly cold winters but moderate summers. The World Bank classifies it as a lower middle-income developing country. While primary production of minerals and fuel accounts for around half of foreign trade, livestock and animal products remain leading exports.

Tremendous changes and valuable gains have been achieved since 1990 when Mongolia embarked on its path to reform all spheres of political, economic, and social life. The economy was then in an extremely difficult situation when the Government initiated the transition with substantial backing from the international donor community. Since then, the country has become more open politically and economically, and the legal foundation for a private sector-led market economy has been established. The transition to a market economy has generally been successful. Currently, the private sector contributes over 60% of GDP, and the shift in public attitudes toward a market economy system has been significant.

Despite these positive aspects, the economy has not attained the expected growth rate nor its full potential. Many social indicators have declined substantially due to a loss of employment and of social security stemming from the closure of former state industries and a deterioration in social services. Social inequality and poverty have grown despite substantial assistance and support from international organizations. Mongolia is trying to address problems related to poverty, unemployment, gender, and migration—all unknown before transition—and struggling to provide good education, health, and social welfare services with limited financial resources, against a backdrop of harsh climatic and geographic conditions.

In January 1992, a new constitution was adopted incorporating the principles of a democratic society based on a market economy and the guarantee of fundamental human rights. Under the new constitution, three presidential and parliamentary elections have been held: in 1992, in 1996, and in 2000. Meanwhile, the reform process has continued peacefully and rapidly, enjoying continued support across the political spectrum. The current Government has emphasized the importance of deepening economic reforms, promoting an export-oriented economy, and improving governance and social equity.

Decentralization and Democratization. Key elements of the political transition process since 1990, as the country moved away from the centralized Soviet-era approach, were decentralization and public administration reform. The legal basis is laid out in the new constitution, the Law on Provincial

Administration and Governance, 1992; the Civil Service Law, 1993; the Public Administration Project, 1994; the Mongolia Development Concepts, 1996; and Government Resolution No. 38, 1996: State Policy Toward Government Strategy and Structural Reforms. They aimed, in particular, to strengthen the roles of local administration in education, health, culture, and social welfare.

The most important component of the decentralization of administration has been the strengthening of local self-governing capability. Functions previously concentrated at the central level have been decentralized and delegated. Accordingly, in terms of education, the roles and responsibilities of the central education authority have been reshaped and a new structure, by which the ministries become policy-making, instead of executive, bodies, has been implemented. The constitution reserves some powers to provinces not specifically granted to the central Government. *Hurals* have legislative responsibilities at the provincial and local levels. The Government is implementing the Public Administration Reform Program, giving local municipal governments control of their own budgets, and is committed to increasing self-financing capabilities for the development of provincial infrastructure by establishing cost-recovery mechanisms. However, local governments lack human resources and managerial expertise to deliver services effectively, particularly in accounting and auditing systems.

In 1996–2000, the central Government encountered frequent changes and replacements resulting in equally frequent changes at the local government and education administration levels. This interrupted planned activities during the implementation process and wasted much time before and after replacements, resulting in a lack of learning and, consequently, skills at the administrative level.

The emergence of civil society bodies is a new phenomenon. Because Mongolia's authoritarian past discouraged the formation of groups that were not part of the state administration, Mongolians have had limited practical experience in participating in either civil society organizations or nongovernment organizations (NGOs). Despite considerable expertise and training provided by international NGOs, the organizational capacity of civil society organizations and national NGOs remains limited. Another new phenomenon is freedom of the press, guaranteed by the new constitution. The Law on Freedom of the Press was approved in 1998. Over the last few years many newspapers, magazines, local radio stations, and TV studios have been established.

Economic Reforms: Shock Therapy. The withdrawal of assistance from the former Soviet Union and the collapse of the Council for Mutual Economic Assistance left the Mongolian economy in an extremely difficult situation at the beginning of the 1990s. In 1990–1992, GDP fell by more than 20%, imports decreased from $924 million to $388 million, and the ratio of investment to GDP decreased from 52% to 11%. In 1992, the annual rate of inflation reached 326% and 54,000 people were registered as unemployed.

The Government, with substantial backing from the international development community, began to liberalize the economy. Reform objectives included price liberalization, privatization of state-owned enterprises, trade liberalization, creation of a favorable environment for private sector development, and a substantial reduction in government activities. Economic recovery began in 1994 when GDP grew by 2.3%; GDP growth has remained positive since then. However, the decade-long picture of transition is sobering: by the end of 2000, GDP remained nearly 4% lower than it had been more than a decade earlier. In addition, the winter of 1999/2000 was the most severe Mongolia had experienced in three decades, resulting in the loss of nearly 10% of the country's livestock and affecting the livelihood of about 20% of the population.

Table D1 shows three economic indicators over 1989–2000. Per capita income declined precipitously at the beginning of the transition period, reaching its low in 1993 and 1995. There was recovery in 1996 and 1997 before the average income declined again in the following 2 years, leaving the 1999 per capita income 77% lower than it had been in 1989. Even after a decade, economic reforms had failed to produce the desired improvement in living standards.

Table D1: Economic Indicators for Mongolia (1989–2000)

Indicator	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP index	100.0	97.5	88.5	80.1	77.7	79.5	84.5	86.5	89.4	92.5	95.3	96.3
Per capita income ($, 1993 prices)	1,643	1,245	617	478	328	334	329	445	467	426	374	—
Inflation (%)	0.0	0.0	152.7	325.5	183.0	66.3	53.1	44.6	20.5	6.0	10.0	8.1

— = not available.
Source: National Statistical Office.

Privatization has been one of the Government's main priorities, but that of large state-owned enterprises and basic infrastructure sectors, e.g., banking, fuel, energy, and communications, is still slow. Inefficiencies in these critical sectors are major obstacles to the future development of the Mongolian economy. Other constraints to sustained economic growth relate to (i) government delays in approving measures to establish a legal framework for private sector development; (ii) the fact that industry (mainly mining) generates growth but no employment, while agriculture (with its main focus on livestock) fails to generate viable year-round employment and income; and (iii) heavy dependence on exports of primary products at fluctuating international market prices.

Persistent Social Bottlenecks. The most impressive achievements of the pre-1990 period were the social development indicators. Life expectancy at birth increased from 46.7 years in 1960 to 62.5 years in 1990, adult literacy rose to 95%, and virtually the entire population had access to health services (98% of pregnant women received prenatal care, and 87% of 1-year-old children were

immunized). There was no recorded poverty or unemployment and malnutrition was rare. Girls received nearly as much education (6.8 years) as boys (7.2 years). Many of these gains were directly linked to heavy subsidies from the Soviet Union during the pre-1990 period and the assured export of Mongolian products to Council for Mutual Economic Assistance countries. When this external support was cut in 1990, the extensive social service network that had been established across the nation was simply unsustainable on the country's own limited resources. Likewise, many domestic industries were either not viable or ill-equipped to enter a competitive global economy.

This combination of the deterioration in social services and the loss of employment at former state industries led to acute problems of poverty and loss of social security, while the collapse of the state budget led to a significant reduction in the provision of basic health, education, and social services. Poverty increased dramatically, especially in rural areas, between 1990 and 1993 before declining slowly for the rest of the decade; but even then, by 1999, 36% of the population were still below the poverty line, up from 15% in 1991. The informal and rural economies are functioning as a safety net providing short-term work, extended family and clan support, and barter-trade for means of survival. The poor, especially small herders and the unemployed in urban areas, remain highly vulnerable to external shocks, such as adverse climatic conditions and economic downturns.

In an attempt to address poverty, the Government introduced a comprehensive, 6-year multisector National Poverty Alleviation Program (NPAP) in 1994. The main goal of the Program was to reverse the trends of increasing human deprivation and human capital erosion on a sustainable basis. The Program was generally successful, though it did not reach the target percentage of poverty reduction due to lack of coordination and policy guidance and recent severe winters. Phase 2 of the Program was launched in 2001.

A dramatic decline in state budgets was experienced in the social sectors. Public expenditure on health fell from 5.8% of GDP in 1991 to 3.6% in 1998. Heart and circulatory diseases, cancer, tuberculosis, and sexually transmitted diseases are on the increase and access to health services and medicines is limited, especially among the poor, the nomadic, and those living in remote areas. The quality of health care is low. Public expenditure on education fell from 11.5% of GDP in 1990 to 7.1% in 1998, the adult literacy rate fell by 1% each year to 87% in 1998, and the number of dropouts increased. High school-dropout rates, particularly among rural males, persist. School enrollment also declined (Table D2)—boys' enrollment dropped more sharply than girls' as many boys were drawn into livestock production. Another important issue in social sector development is gender. In the middle and higher grades of secondary schools, the number of males has decreased so that at the tertiary level the majority of students are female. This is likely to have a significant impact on the traditionally male dominant culture of Mongolia.

Table D2: Basic Indicators for the Education Sector in Mongolia (1995–2000)

Level	Indicator	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01
Preschool Education	Schools	660	667	660	658	650	653
	Public (%)	97	96	96	96	97	96
	Pupils	65,239	67,972	70,035	73,955	78,630	79,294
	Male (%)	47	47	47	47	—	—
	Teachers	2,004	2,998	2,985	3,015	2,986	3,056
	Pupil/teacher ratio	32.6	22.7	23.5	24.5	26.3	25.9
Primary Education: Grades 1–4	Schools	83	79	89	96	116	113
	Public (%)	100	100	89	82	68	70
	Pupils	217,901	234,193	244,815	251,476	253,441	249,950
	Public (%)	100.0	100.0	99.7	99.0	99.0	98.0
	Male (%)	49	49	50	50	50	50
	Dropout rate (%)	4.0	4.4	4.0	4.1	3.6	—
	Repetition rate (%)	0.73	0.69	0.72	0.92	0.77	0.56
	Teachers	7,126	7,378	7,618	7,815	7,868	—
	Pupil/teacher ratio	30.6	31.7	32.1	32.2	32.2	—
Secondary Education: Grades 5–10	Schools	581	579	556	534	552	570
	Public (%)	100.0	100.0	100.0	100.0	96.7	93.7
	Pupils	185,946	184,100	190,246	195,645	216,507	244,594
	Public (%)	100.0	100.0	100.0	100.0	99.7	99.0
	Male (%)	42	42	43	44	45	45
	Dropout rate (%)	3.04	3.18	2.59	2.38	2.09	—
	Repetition rate (%)	0.20	0.17	0.19	0.34	0.18	0.11
	Teachers	12,274	12,712	10,993	10,687	11,355	—
	Pupil/teacher ratio	15.1	14.5	17.3	18.3	19.1	—
Technical Education and Vocational Training	Institutions	38	39	38	38	39	36
	Public (%)	89	90	89	89	87	89
	Students	7,987	11,308	12,320	11,650	11,245	12,177
	Public (%)	97	97	97	98	98	98
	Teachers	495	767	742	652	860	865
	Student/teacher ratio	16.1	14.7	16.6	17.9	13.1	14.1
Higher Education	Institutions	66	80	90	103	118	172
	Public (%)	44	36	32	31	30	22
	Students	38,361	44,088	50,961	65,272	74,025	84,970
	Public (%)	78	74	72	71	69	67
	Teachers	3,076	3,205	3,416	4,390	4,421	4,910
	Public (%)	88	84	82	80	76	70
	Student/teacher ratio	12.5	13.8	14.9	14.9	16.7	17.3

— = not available.

Other important obstacles to the provision of basic health, education, and social services stem from the nomadic and pastoral lifestyle of the vast majority of rural people and government moves toward a cost-recovery scheme that limits access for poorer citizens. One of the pressing problems that has emerged during recent years is migration from rural to urban areas, largely due to the collapse in traditional rural agriculture, and the subsequent emptying of villages in remote areas. The consequences of this movement are alarming: (i) it makes remote areas even less populated so that the provision of services deteriorates even further as a result of its high cost, and (ii) the burden on urban infrastructure (such as electricity, heating, social welfare, housing, and transportation) increases.

Due to its young population, Mongolia has a relatively small labor force: an estimated 859,300 (68.4% of the working age population) workers were registered at the end of 1998. This was slightly less than 40% of the total population. Every year the country needs to absorb 25,000 new entrants to a labor market in which employment opportunities are limited. Privatization of agriculture and a decline in industrial production have decreased wage employment in the formal sector. Official unemployment seems to have stabilized at less than 5%, while hidden unemployment is estimated at 12%. Unemployment is strongly correlated with poverty in urban areas, where 52% of the poor are unemployed, compared with 20% unemployed among the rural poor and 30% of the poor nationwide. The informal labor market, where workers receive no formal protection, seems to be growing. Outside agriculture and the informal sector, most of the workforce are employed in either state-owned enterprises or in government service. By the end of 1998, total employment included 20.5% in civil service, 17.7% in the private sector, and 53.5% in agriculture or self-employment.

2. Political Commitment to Support Education

The Government has always granted the education sector a leading role, both in the Soviet era and since, as traditionally, Mongolians regarded education as an important asset, a view that has continued to the present day. The rapid social and economic changes that began in 1990 started with reforms in the education system toward serving society and meeting public needs, and away from the old education mechanism that was more suited to a centrally planned society. In fact, the education establishment had made proposals for education reform since the late 1980s. For example, the Fifth Congress of Mongolian Teachers, held in June 1989, prepared the ground by proposing administrative decentralization, increasing involvement of stakeholders in school management, and creating a favorable environment to support students' independent learning.

Several legal and policy documents, such as the 1995 Government Policy Toward Education, affirm that education is a priority sector and should play an important role in fulfilling the country's development goals. The policy document states that "the Mongolian government recognizes that the source for Mongolia's

future progress is the continually developing creative citizen with highly developed education and intellectual abilities and skills and so it places education as a priority sector of society". The document further states that "education is the source for sustainable and accelerated economic and social growth, science and technology progress, intellectual and welfare creation, national sovereignty and security". Education reform appears to be a political priority in the overall development agenda of the Government, especially as a market economy will need different skills from those previously provided by the education system. In recent years, the Government focused on fighting poverty and regarded education as a key instrument for improving equity, living standards, and economic capacity.

The Government Policy Toward Education and the Education Law identify the following principles governing people's right to education and government responsibility in the provision of education:

- education is to be developed as a priority sector. The Government will continually support and nourish it while monitoring and coordinating its activities;
- the Government will provide free basic secondary education for all;
- citizens will be provided with an equal opportunity to learn in their own mother tongue by not discriminating on account of social origin, status, race, color, age, sex, wealth, job, position, or religious belief;
- it is prohibited to organize any training activities contradictory to the interests, health, and security of individuals and of society or contradictory to democratic beliefs; and
- the Government will support education institutions without discriminating on the grounds of ownership.

To guarantee education security and sustainability, 20% of government revenues were to be allocated to the education sector for the following specific uses:

- budgets necessary for authorized institutions to operate on a regular basis;
- seed resources for education institutions to carry out lawful income-generating activities for the benefit of their staff and students;
- special fund to assist students with loans and grants;
- extra vacation days for teachers according to their job specifications and conditions;
- extra 1 school year's salary for teachers with more than 25 years of teaching on retirement;
- subsidies for boarding students from remote *aimags* and cities to return home twice a year;
- public transport concessions to students for traveling to school;
- assistance to gifted or outstanding students, and to those who are orphans, or who come from families below the official subsistence level; and

- subsidies and tax exemptions for business entities that support education organizations.

While the 20% target was not reached, a noticeable effort was made to increase education budgets. In 2000, public expenditure on education was above 19% of total public expenditure against 14.7% in 1997 (Table D3). However, the level of funding remains low in comparison with the Soviet era.

Table D3: Basic Financial Indicators for Education (MNT billion)

Indicator	1995	1996	1997	1998	1999	2000
GDP (at current prices)	550.3	646.6	832.6	817.4	925.4	1,044.6
Total public expenditure	149.4	211.3	287.7	324.2	364.7	412.9
Public expenditure on education	23.5	31.2	42.2	58.4	64.8	78.8
As % of GDP	4.3	4.8	5.1	7.1	7.0	7.5
As % of total public expenditure	16.0	14.8	14.7	18.0	17.8	19.1
As % of total budget revenue	16.3	19.1	18.9	24.3	17.8	19.1
Capital expenditure[a]						
Construction/reconstruction	64.3	74.5	167.0	205.0	—	—
Equipment and training facilities	20.0	32.5	97.0	135.0	—	—

— = not available. [a] MNT million.
Sources: Ministry of Science, Technology, Education and Culture. 1999. *Analysis of 1998 Education Sector Statistical Data*. Ulaanbaatar; National Statistical Office. 1999 and 2000. *Mongolian Statistical Yearbook 1998* and *1999*. Ulaanbaatar.

In its efforts to strengthen the education system, the Government has used foreign aid in addition to domestic sources. ADB has been the principal aid agency, providing loans and technical assistance for the implementation of an Education Sector Development Program (ESDP). Bilateral and multilateral agencies, such as AusAID, Danida, European Union TEMPUS and TACIS, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Japan International Cooperation Agency (JICA), KOICA, Micro-Start, Peace Wind Japan, Soros Foundation, UNDP, UNESCO, UNICEF, the United Kingdom's Save the Children Fund, World Bank, and World Vision, have played important roles in supporting education. Under conditions of economic downturn and limited resources, external funding proved especially important.

3. Comprehensive Legal and Policy Framework

Creating a new education system and an organizational structure to meet the requirements of a market economy was one of the Government's major objectives in the early 1990s. Important issues, such as defining a new role for education (e.g., objectives, mission, content, methodology, curriculum, financing, and

regulations) were all pressing. The education sector developed its reform agenda ahead of other sectors, through clearly stated government policy documents and education laws.

Education Law of the Mongolian People's Republic, 1991. The adoption of this Law in 1991 (prior to the new constitution), and its implementation in August that year, facilitated the start of nationwide reforms in education. The Law played a historical role in the process of education decentralization, in the establishment of private education institutions, and in the creation of the legal environment to remove the old education structure. However, the main purpose of the Law was to regulate the education sector in general terms; it did not regulate the specific relations among the subsectors. These were to be regulated by later legislative documents. It was difficult to foresee all the complex features that would emerge from a market economy, open democracy, and more independence of education institutions. Another major drawback of this Law was that it did not specify lines of responsibility. In 1994 and 1995, the need to regulate organizational issues in education became urgent and the first post-Soviet-era education law was developed (Education Law, 1995).

Government Education Policy, 1995. Approved by Parliament in 1995, this policy paper stated that the Government would aim primarily at creating a new education system which would reflect the specifics of both Mongolian and international standards. Though this document has played an important role in identifying future directions, it has failed to address some of the major issues of the education sector, such as the duration of secondary education. The main concepts of this document were incorporated into a set of laws on education approved by Parliament in 1995, providing a legal framework for sector reform.

Education Law, 1995. This Law considered the education sector in the context of unity between formal and nonformal education, and reflects common issues, such as education levels, the limits and extent of the rights of education institutions and stakeholders, internal management of education institutions, standards, permissions (licenses) to conduct education activities, registration of education institutions, social security for education, and financing. The Law reinforced government policy toward decentralization of administration and autonomy for education institutions. It also legalized the rights of school boards represented by founders, teachers, students, alumni, and parents to approve school charters, rules, regulations, structures, personnel, and annual budgets. However, quality assurance and accreditation issues proposed in the Law could not be implemented because the personnel and resources were unavailable to carry out these activities independently.

Primary and Secondary Education Law, 1995. This Law reformulated the objectives of preschool, primary, and secondary education and legalized standard requirements for education content, forms of providers, duration of training, and organizational structure. It incorporated technical and vocational education and training into secondary education. The duration of secondary education was not

changed to become comparable with international standards, and specific issues related to vocational primary and secondary education were not addressed.

Higher Education Law, 1995. This Law reformulated the objectives of higher education institutions, and standardized requirements for education content, forms of providers, higher education programs, quality control, and financing. By legalizing a credit system in higher education, it laid the foundation for active participation of students in planning their studies and improving independent learning skills. It established degrees of higher education comparable with international practice (e.g., diploma, bachelor's, master's, and doctoral).

Amendments to the Education Laws. Amendments approved in 1998 and 2000 moved decentralization a step ahead by setting out licensing requirements and expanding the rights and responsibilities of institutional management boards and founders (in the case of private institutions). With regard to higher education, the amendments were aimed at setting the types and levels of institutions.

In addition to the legal framework provided by these laws, several government resolutions and programs were issued to establish general policy directions for the various subsectors.

Education Master Plan, 1994. During the second half of 1993, ADB supported a comprehensive sector review and the preparation of a master plan to guide the education and human resources development strategy in a period of transition from a command to a market economy. The two documents that resulted from this work—Mongolia Sector Review: Human Resource Development and Education Reform Project, 1993 and Mongolia Master Plan: Human Resource Development and Education Reform Project, 1994—have guided the development of the education sector. The Master Plan identified six areas for action: (i) enhancement of basic and general education, (ii) the reform of higher education for national development purposes, (iii) rationalization of vocational training, (iv) provision of learning opportunities for out-of-school children and youth, (v) improvement of education management, and (vi) increased efficiency in Ministry of Science and Education structure and operations.

National Program for Preschool Education, 1995. This program was approved by the Government in 1995 and implemented over the following 5 years. In the early 1990s, the number of day nursery schools for children aged 0–2 fell significantly due to local government budget deficits. The number of children in kindergartens fell substantially and about 2,000 kindergarten teachers lost their jobs. This program aimed at creating a favorable preschool education structure appropriate to both nomadic and sedentary populations; supporting nongovernment preschool education institutions; improving curriculum, methodology, and provision of training facilities; supporting family education of preschool children; and strengthening skills of preschool educators to meet modern requirements.

National Nonformal Education Development Program, 1997–2004. The main purpose of this program was to "provide the necessary education to the

population outside the formal schooling system by means suitable to the individual methods and in times suitable to the individual." Its immediate objectives were defined as establishing a network of nonformal education centers throughout the country. The major objectives included: improving general literacy levels; reeducating and upgrading the level of education of the population; providing professional and labor training and retraining outside the formal education system; and assisting people in learning creative activities and in acquiring education by self-study.

National Program for Technical Education and Vocational Training, 1995. Due to lack of employment opportunities, the demand for technical education and vocational training (TEVT) declined in the early 1990s. However, as state-owned enterprises were privatized, many small and medium enterprises emerged. In order to compete in the new economic environment, enterprises needed to renew their technologies and have skilled professionals. The main purpose of this program was to develop a new structure for TEVT in conformity with labor market needs. The program objectives were to: (i) restructure and improve the management and organizational structure of TEVT; (ii) invest in selected TEVT institutions, renovating and reequipping its training facilities as well as improving learning and teaching environments; (iii) develop wide-ranging and flexible curricula; and (iv) improve access by creating appropriate and effective institutional structures. At present, the implementation of this program is in a relatively early stage. Several project proposals have been developed and submitted to international organizations for cooperation. Various projects implemented by European Union-Technical Assistance for Commonwealth of Independent States (EU-TACIS), the European Training Foundation, and the governments of Germany and the Republic of Korea play positive roles in the implementation of this national program.

National Program for Mongolian Script. Approved by Parliament in 1995 during a wave of nationalism urging the reintroduction of the teaching of traditional Mongolian script in schools, this program has not been implemented successfully. It required much greater investment in staff training and retraining, and in textbook development (including printing in traditional Mongolian script) than the Government could afford. The program also failed to anticipate the lack of support among the population because few parents of school-aged children themselves could read traditional script.

National Program for Ecology Education. Approved in December 1997, this program aimed at developing ecology education and environmental awareness among the population. This program has been implemented and, among other things, environmental education has been included in secondary and higher education curricula.

National Program for Health Education. The goal of the program is to educate children in protecting their health and in leading healthy lives, and to create favorable conditions for educating the population as a whole about healthy

lifestyles and maintaining good health. During implementation of this program, teachers were trained, and subject content and methodology were developed and implemented into the curriculum for grades 1–10.

Government Policy on Science and Technology. Approved in 1998, this document states that the source of Mongolia's future progress and development is a rapid development of science and technology to such a level that it is capable of acting as the main factor for developing a sustainable, export-oriented market economy.

Mongolian Information Technology Development Concepts to 2010. This document provides approaches to creating a viable system for providing citizens with information, intellectual wealth, and current education resources. Established in 2000, the Erdemnet network also provides opportunities for introducing and using the Internet and information technology resources in schools and other education units.

Main Directions of Education Reforms in 1997–2005. Major initiatives identified in this document were:

- developing appropriate standards and contents at all levels of the education system;
- increasing participation of stakeholders in education administration and strengthening education institution autonomy;
- introducing modern methods and techniques of education planning;
- taking measures to train young professionals in developed countries;
- establishing credit and loan funds to increase assistance to students and employees in the education sector; and
- restructuring MECS to improve effectiveness in policy development, planning, evaluation, monitoring, public administration, and public service generally.

Education Sector Development Program (ESDP). In 1996, ADB approved the ESDP, an integrated package of policy reforms and investment loan, with associated technical assistance (TA) intended to make the sector more cost efficient, effective, and responsive to the emerging market economy. The policy reform package included measures to (i) rationalize education structures and staffing, (ii) promote cost recovery, (iii) support privatization and private provision of education, and (iv) develop a comprehensive policy framework for TEVT. The investment component of ESDP aimed to (i) strengthen education management capabilities at central, local, and institutional levels; (ii) improve the coordination of management and academic development in postsecondary education; and (iii) upgrade quality and relevance in education content at the upper secondary and postsecondary education levels.

4. Increased Decentralization and Participation in Education Policy

Management Decentralization and Changing Role of MECS. Mongolia started its education reform following a top-down approach. The process for creating a legislative framework and circumstances for introducing democratic mechanisms, administrative decentralization, and for improving independent activities of local administration and education institutions began only in 1995. Due to these changes, the role and duties of MECS have evolved. Shifting away from direct administration and involvement in decision making related to operational activities of education institutions, MECS has become more of a policy and strategy-planning agency with the duties of providing leadership, coordination, monitoring, and evaluation. MECS is responsible for the implementation of national education policies, programs, and standards. At the local level, government policies are implemented through local governors of *aimags*, *sums*, and city districts. The Government and ministers report directly to Parliament while local governors report to the local citizens' representative meetings.

The levels of hierarchy in education administration have been reduced, while the powers and responsibilities of education institutions have expanded and their creativity has improved. Education institutions have become more concerned with developing and formulating their own missions, goals, and objectives. Projects such as Local Support for Local Schools and Rural School Development, funded and assisted by international agencies, play a significant role in the introduction of participatory, bottom-up approaches.

The process of education decentralization is continuing. The Education Law established the Education Research and Methodology Institution and local branches (or education centers) in *aimags* and cities. The Institution is conducting basic and applied research in education development and providing information for all schools and citizens. Its local branches give professional assistance to kindergartens and schools, providing their managerial staff and teachers with information in theory and methodology, and assisting in supplying education-related information and materials.

The responsibility for establishing, licensing, and administering primary and secondary schools and kindergartens was transferred to *aimag* and city governors, while similar responsibilities for professional and higher education institutions were assigned to MECS.

The education laws allow nongovernment education institutions at all levels of education; and government and nongovernment education establishments can also compete in the market place. Thus, new privately owned kindergartens, schools, and colleges have been established. With the growth of the private sector, the burden on government education institutions has become lighter; students can choose their school/institution and program, based on their finances, time resources, and employment possibilities.

Some constraints to decentralization and privatization of education, peculiar to the initial phase of transition, persist, for example:

- managers and administrators have been reluctant to make decisions and waited for instructions from above or exercised outdated practices;
- the frequent changes of central government, accompanied by changes of local governments and education administration levels, interrupted implementation of decentralized decision making;
- many private schools and institutions were established and operated not for the main purpose of providing education services but to make a profit, taking advantage of an inadequate legal basis for the regulation of nongovernment education institutions; and
- the delegation of power to local authorities were carried out without proper training of staff in human resources or in financial management.

Reform Monitoring and Evaluation. MECS set up a Monitoring and Evaluation Department in June 1997.[7] The Department is responsible for monitoring the implementation of laws, policies, and objectives as defined in the Government Action Plan, and for the enforcement of rules and regulations within the education sector. The Department carries out monitoring by collecting, processing, adjusting, and analyzing data using a well-defined set of indicators. Performance indicators of secondary school activities were approved by MECS Ministerial Decree No. 87 in 1994, while Decree No. 34 approved kindergarten indicators in 1998. Problems have been encountered in analyzing these indicators that differ from commonly used international performance indicators. Eighteen core performance indicators were developed and used in the Education for All assessment.

Information Flows. MECS collects education statistics using 16 different standard forms sent on computer diskette or, in some cases, by e-mail twice a year. Validity and reliability of the information are inevitably related to timing and distance from Ulaanbaatar. Currently, the complete monitoring cycle of collection, processing, and analysis takes 1–2 months. Information flows still move from the bottom to the top. The statistical database is stored and accessed within a local network of MECS and used in policy making and/or daily work by MECS officers. This database is also sent to the National Statistical Office and used for national reports. Statistical information is collected from education institutions by *aimag* and capital city education and cultural centers who check and consolidate data before sending them to MECS. In 1999, a project was implemented to equip education and cultural centers (ECCs) with computers, fax machines, and modems to connect them to a national network. However, due to

[7] This was in accordance with a parliamentary decision to restructure ministries to incorporate policy making, implementation and coordination, public administration, and monitoring functions or departments.

problems with interurban telecommunications, only eight out of 22 ECCs have (irregular) access.

Role of Social Forces, Education Stakeholders, and Constituencies. The legal framework for increased participation transferred rights and responsibilities of the major stakeholders and interest groups to school management boards. These boards, comprising representatives from students, teachers, graduates, stakeholders, parents, and others, have the right to (i) appoint and dismiss the director; (ii) approve or disapprove development policy, program, and charter; (iii) decide on organizational structure and staffing; (iv) approve annual budget allocation and monitor its spending; (v) approve fees; and (vi) discuss operational reports of the organization. Democratization of education administration is also proceeding through improvement of stakeholder participation, with the establishment of boards/councils with representatives of founders, teachers, students, alumni, and parents, helping guarantee the autonomy of education institutions. While decentralizing education administration, the Government maintains the right to issue licenses and register education organizations to ensure that basic requirements for education service provision are met.

5. Particular Reform Experiences and Innovations

Variable Cost per Student. Some schools in urban areas are significantly overcrowded while rural schools suffer from a shortage of students due to increased migration of the rural population to urban areas. The distance between the school and the central urban area has become the main criterion for budget allocations. This change in the financing mechanism encourages schools to retain enrollment levels and contributes to decreasing dropout rates. Yet, in spite of the benefit for rural schools, such a mechanism has been insufficient and many schools in *sums* are still in danger of closing due to lack of funding.

In-Service Teacher Training Vouchers. In-service teacher training stands as a separate budget section in the Annual Budgeting Law approved by Parliament. As a result of management decentralization, a voucher system has been introduced for in-service teacher training within the framework of a new, school-based training system. Teachers are provided with vouchers that enable them to choose from among the various programs offered by different local and central training providers. MECS distributes budgeted resources to *aimag* and city ECCs, which in turn distribute vouchers to schools based on a needs analysis. The ECCs also coordinate different training activities. Until now, local authorities have been largely responsible for voucher coordination, but with improvements in information technology the teacher training voucher system will be handed over to schools. In-service teacher training activities have shifted to the more advanced system of providing the schools' local authorities with their choice of training, based on identified needs. However, the local authorities and schools are not well enough prepared to provide a proactive training program necessary to meet the

needs of teachers and, consequently, the vouchers are sometimes used inappropriately.

Benefits to Dependents of Government Employees. After 1993, higher education fees were introduced for all public universities and colleges. Because of this, there was an acute need to protect vulnerable groups in society, support talented students with outstanding achievements, and provide student loans and financial assistance. Parliament approved the Government Service Law which required the Government to pay the fees of one dependent of a government employee, including teachers, to acquire a higher education degree. This Law was intended to provide social benefits to government employees, but its implementation resulted in many negative outcomes. This assistance was provided no matter what profession dependents were acquiring, which institutions they were attending (whether government or nongovernment), or what their academic achievements were. Because Mongolia has a relatively high percentage of government employees, this Law needs careful coordination and monitoring. Employees of incoming governments were also entitled to these benefits, and with the rapid turnover of governments, this led to an ever-increasing number of eligible people.

State Training Fund. Since 1994, gifted students have been receiving loans and grants from the State Training Fund, created when fees for higher education were introduced. The Fund provided assistance to students from vulnerable families with incomes below the subsistence level studying in accredited higher education institutions. However, the Fund was unsuccessful, as it could not accumulate resources for future operations after an initial government investment because of a very low rate of repayment of loans.

Autonomy of Higher Education. Higher education institutions were left with minimal government support and involvement in their operations, creating room for innovation. Some entrepreneurial managers are reforming their institutions very successfully. Others form consortiums and associations to share costs and/or regulate issues that are difficult to manage when operating separately, such as sharing Internet and library expenditure. While striving to improve their efficiency, many higher education institutions are looking for extra income-generating activities. Many universities and schools are offering extra programs in languages, mathematics, humanities, business, accounting, and law. Although many of the private higher education institutions were set up to meet student demand for business, accounting, finance, law, computing, and foreign languages, too many of them are offering similar programs. Many graduates, having found no work in these areas of expertise, now work in totally different fields. At the same time, there is a lack of trained and skilled workers in industries such as construction and tourism.

Higher Education Credit Hour System. A system of credit hours has been implemented since 1998 and it is one of the successful reforms in higher education. It allows earning credits for previously studied subjects and earning

degrees by accumulating sufficient credits. It also allows students to upgrade their knowledge, based on credits earned, without necessarily repeating previously studied courses or repeating an entire year of study when his or her performance was substandard in only one subject. Students can plan their own learning and study process according to their financial and personal capabilities. They are given options to select as few as two subjects per semester for study, they can acquire two professions together, or they can select additional courses to strengthen their professional leverage. The credit hour system encourages student to study by themselves, a task that requires personal management and learning skill development.

Higher Education Accreditation. The Government intends to secure the quality of higher education through licensing. In 2000, 78% of the 172 higher education institutions were privately owned, enrolling one third of the total student population. Although some institutions, both public and private, are of very poor quality, they are accommodating a certain portion of the population who otherwise could have been left without further training and definitely without a job. The accreditation process was started in 1998 with the creation and development of a legal framework for self-management of higher education institutions. A total of 22 state and 14 nongovernment higher education institutions have been accredited. These accredited institutions enroll 66.8% of all students. Higher education accreditation activity is being extended to individual programs if study is offered at accredited institutions.

Rationalization Efforts. A study to evaluate kindergarten and secondary school location, structure, staffing, and the use of training materials was carried out in 1997. Based on the results, secondary schools were restructured and a staff rationalization program was implemented in 1997/98. Some 3,000 teaching and nonteaching staff took voluntary redundancy packages, which included cash payment and specialized small-scale business training assistance. This education sector restructuring initiative was the first and largest of its kind in Mongolia. The most important outcome of the initiative is that the psychological foundation for further change has been established, and people are now prepared for more restructuring initiatives.

The new secondary education structure and forms of school complexes, aimed at improving quality and efficiency of training, are now stabilizing after some initial problems. However, when the restructuring initiative began, many members of staff did not really comprehend its aims and objectives and, thus, many people (some of them perfectly competent and important to the sector) left. There was considerable opposition to the staff rationalization program from a variety of sources; this was exacerbated by teacher shortages in some areas.

Future Directions for Action. Mongolia's 10-year compulsory education system is not consistent with international practices and standards. The Government has agreed to the change from a 10-year to an 11-year (and possibly even a 12-year) education system, but the current economic situation makes its

implementation very difficult, and the existing infrastructure and equipment are inadequate to accommodate future growth in student numbers.

The reform of TEVT has been slow and the subsector is still failing to meet labor market needs. Primary and secondary professional education issues are not fully covered in the current education laws and need to be addressed.

Although private sector participation in the education sector has been encouraged, effective systems for regulating NGO schools and universities and for differentiating between nonprofit making and profit-making activities are not yet in place.

Conclusions. Factors ensuring success in reform include setting goals and objectives, developing a holistic view of system change during the implementation period, and regular assessment of change processes. Mongolian education reform was not aimed at rehabilitating the old system but rather at creating a completely new system based on new concepts and attitudes. The education reform was comprehensive and system change has been carried out as a whole, not by separate measures. Changes were, however, built upon the advantages and achievements of the old education system. Given the limited financial resources and economic crisis, the education reform measures would not have been viable without the participation and partnership of both state and private stakeholders.

Although restructuring the whole system is a difficult and long-term task, some positive changes have already been seen within education. Interest in improving efficiency and effectiveness, professional cooperation and coordination, and the number of options available to students have increased. A certain amount of autonomy at local and school management levels has been achieved. A variety of interest groups has been involved in decision making and school management. Decision making has become more transparent. New financing and quality assurance mechanisms have been introduced: variable costs per pupil and the provision of in-service teacher training vouchers are gaining support, and the financial burden on government has decreased. Education content has become more relevant to learners' needs, flexible, and free from ideology, and curriculum standards have been developed. Finally, new constructive training technologies, as well as information and communications technologies, have been introduced.

The education sector has experienced fundamental changes in the past decade during which Mongolia has been developing into a democratic society, based on a market economy. Education developments were shaped with the concepts of globalization and liberalization in mind. However, some country-specific needs and national specificities were overlooked, and some reforms were merely copies of international models and experiences that were not always appropriate or applicable to Mongolia.

TAJIKISTAN

1. Political, Economic, and Social Developments of the 1990s

Background. Tajikistan is a country of 6.25 million people, covering an area of 143,100 square kilometers. It is bordered by Uzbekistan, Kyrgyz Republic, People's Republic of China, and Afghanistan; almost 94% of its territory is mountainous and nonarable. The official language is Tajik and Russian is used as the primary international language.

Following its declaration of independence in September 1991, presidential elections were held in December that year and Rakhmon Nabiev, formerly Chairman of the Supreme Council, was elected President with about 70% of the votes. The opposition was unwilling to accept the results and peaceful demonstrations turned to military resistance and then civil war. More than 200,000 people left for Iran, Pakistan, and CIS countries. IMF and the World Bank have estimated the damage to the economy at over $7 billion.

In early 1997, negotiations between the Government and the opposition were held and in June a peace agreement was signed in Moscow. In accordance with the agreement, a Commission of National Reconciliation was formed with representatives of both the Government and the opposition. The issues resolved by the Commission included the involvement of opposition representatives in government, the merging of opposition armed forces with the national army, the release of hostages and political prisoners, procedures for parliamentary elections, and the legalization of previously prohibited political parties.

Despite political instability, social divisions, and a deep economic crisis resulting from the transition to a free-market economy, the Government took steps to establish a legal framework for the country. In November 1994, the constitution was adopted through a public referendum, and presidential rule was introduced. The constitution was amended in 1999 to increase the presidential term to 7 years and to give the president greater authority. It also divided the one-house Parliament into two: the House of Representatives (Majlisi Namoyandagon) and the National Assembly (Majlisi Mili).

The Prime Minister and the heads of local authorities are appointed and dismissed by the President while the legal bodies and public prosecutor's office are independent.

The Economy During the Transition. The breakup of the Soviet Union and of the previously close economic relationships among CIS countries, civil war, loss of highly skilled specialists, and destruction of the country's economic structure led to a sharp reduction in GDP. Many of the large industrial enterprises reduced capacity. Tajikistan changed its currency three times between 1994 and 2000 from the Soviet to the Russian to the Tajik ruble, before introducing the somoni (with 100 dirams) in October 2000.

GDP was at its lowest point in 1996, when it stood at only 32.6% of its 1991 level. However, as can be seen from Table E1, it has grown rapidly since 1997. Per capita GDP reached 39.2% of its 1991 level in 2000.

Table E1: National Accounts and Government Finance (1995 and 1997–2000), TJS

Indicator	1995	1997	1998	1999	2000
GDP (million)	69,800	518,400	1,025,200	1,345,000	1,806,700
GDP per capita ($)	196.5	139.2	145.4	149.4	159.6
Total government revenue (billion)	9.9	109.0	180.4	249.9	251.7
TPE (billion)	9.4	105.1	178.7	236.4	261.8
Total education expenditure (million)	1,524.1	13,405.1	22,373.9	27,929.2	41,606.6
Education as % of TPE	16.2	12.8	12.5	11.8	15.9
Education as % of GDP	2.2	2.6	2.2	2.1	2.3
Health as % of TPE	10.3	8.0	6.7	5.9	6.5
Health as % of GDP	1.1	1.7	2.5	1.2	0.9
Economic affairs/services as % of TPE	29.2	20.4	17.5	25.4	—
Economic affairs/services as % of GDP	3.9	4.1	3.0	4.5	—
Foreign exchange rate (TJS/$)	135.00	564.00	773.30	1,240.50	1,600.00
Final consumption (million)	49,800	366,300	786,300	1,084,300	—

— = not available, GDP = gross domestic product, TPE = total public expenditure.
Source: State Statistical Committee of Tajikistan. 2001. *Finance of Tajikistan and Annual Report of the Republic of Tajikistan Up to Its 10th Anniversary*. Dushanbe.

Several factors explain the improved economic situation: stabilization of the political situation, increased foreign investment, development of a legal framework for business and the private sector, and reforms in the national banking system.

The total volume of foreign direct investment in 2000 reached $23.2 million, with the United States as the largest single source with $7.2 million, followed by Austria ($6.4 million), United Kingdom ($5.1 million), and Russian Federation ($0.7 million). The total volume of accumulated investments by early 2000 was $2.2 billion (Goskomstat 2001a). At present, 19 internationally funded projects are under way, totaling $194 million. Most of these projects are aimed at poverty reduction and the reconstruction and development of social and production infrastructure.

Demographic Indicators. Tajikistan has one of the highest population growth rates in the subregion. Despite severe social and economic problems, civil war, and high emigration, the population has continued to grow. Between 1990 and 2000, it increased at an average annual growth rate of almost 1.7%, from 5.3 million to 6.25 million, of whom 73.4% live in rural areas (Table E2). At the same time, the annual birth rate has continued to decline: from 38.8 per 1,000 in 1990 it dropped to 27 per 1,000 in 2000. The age distribution of the population

suggests a high dependency ratio: in 2000 those aged 0–14 years and 65 and above formed 48.1% of the population. The population is composed of a variety of ethnic backgrounds: in 2000 about 80% were Tajik, 15.3% Uzbek, 1.1% Russian, and 1.1% Kyrgyz (Goskomstat 2001a).

One reason for the heavy demand on the education system is the country's high birth rate. In 1998, the 2,348,401 children aged between 3 and 17 constituted nearly 40% of the population. Although the birth rate has begun to decline, the reduction will not affect the demand for school places until later this decade.

Table E2: Demographic Indicators (1990, 1995, and 1997–2000)

Indicator	1990	1995	1997	1998	1999	2000
Total population (million)	5.30	5.84	5.90	6.01	6.13	6.25
Females (%)	50.3	50.1	50.3	50.2	50.1	49.9
Aged 0–14 (%)	43.0	43.9	41.0	41.2	41.5	41.8
Aged 15–64 (%)	53.1	52.2	55.0	53.8	52.6	51.9
Aged 65 and over (%)	3.8	4.0	4.0	4.8	5.5	6.3
Rural population (%)	67.8	71.9	72.6	72.8	73.1	73.4
Population growth rate (%)	2.4	1.7	0.8	1.9	2.0	2.0
Population density (per km²)	37	41	42	43	44	45
Life expectancy at birth (years)						
Males	67.3	63.6	64.0	64.3	66.1	66.6
Females	72.9	69.1	69.6	69.7	70.8	71.3
Birth rate per 1,000	38.8	28.6	25.0	30.2	30.9	27.0
Infant mortality rate[a]	40.7	30.9	27.9	23.4	19.4	16.7
Population employed ('000)	1,934	1,853	1,789	1,796	1,737	1,745
In agriculture (%)	43.1	59.1	64.0	60.0	64,4	65.0
Female labor force (%)	38.6	38.5	38.3	38.3	38.2	38.2

[a] Per 1,000 live births.

Sources: Asian Development Bank. 2000. *Key Indicators of Developing Asian and Pacific Countries.* Volume XXXI, Statistics Division; United Nations Economic and Social Commission for Asia and the Pacific (ESCAP); State Statistical Committee of Tajikistan. 2001. *Finance of Tajikistan and Annual Report of the Republic of Tajikistan Up to Its 10th Anniversary*. Dushanbe.

Labor Market. In 2000, of the 3,186,000 people aged 15–64 years, about 55% were economically active. With the transition to a market economy and the introduction of new legislation, the character of the labor market has changed fundamentally. As a result of privatization, low salaries and the departure of qualified personnel, public sector employment has dropped by 50%. The average salary in 1998 was $11 per month while it was estimated that the amount required for basic subsistence was $28 (UNDP 2001).

Many workers are in occupations yielding little or no payment owing to underemployment or the partial operation of enterprises. The number of people receiving no pay for their work was estimated at 71,419 (4.1% of the total number

employed) at the end of 2000. Between 1992 and 1998, the annual unemployment rate increased from 0.4 to 3.2%, before declining to 3.0% in 1999 and to 2.7% in 2000. Because of incomplete registration, only 3.4% of those registered as unemployed receive a government allowance of $1.50 per month. (UNDP 2001 puts unemployment at close to 30%.)

There are important regional variations in unemployment figures. For example, the official number of unemployed in Gornobadakhshan is 11.5%, or nearly four times that in Sogd Oblast (3.2%) and Regions of Republican Subordination (3%). Unemployment is worst in rural areas. According to the World Economic Institute in Tajikistan, 15.7% of the economically active population in rural areas in 1998 were unemployed.

While all groups have suffered from unemployment, the most vulnerable are women and young people. The number of registered unemployed women has doubled during the last 4 years. Some 59% of all registered unemployed are young (7,700 younger than 18), and each year more than 120,000 young people enter the labor market. Of these, 11% become registered unemployed. Teenagers, having no access to work in the formal sector, look for jobs in the informal sector or may resort to crime and violence. Hundreds of thousands of young people leave the country for seasonal work in other CIS countries. Clearly, Tajikistan needs a more proactive labor market policy, which can enhance the position of women and young people in society. Each year, approximately 6% of the registered unemployed are young people who have completed vocational/professional training courses. This suggests that training alone cannot overcome the problem of unemployment. High unemployment and widespread poverty have led to increased frequency of traditional forms of employment—*mardikor*—in which people gather in city markets seeking casual work. Child labor is frequently seen. School children often help their parents when they should be at school.

2. Overview of Education Developments

Just prior to the demise of the Soviet system, social protection of teachers was good and teaching was a prestigious profession: teachers were respected and granted many privileges. Teacher training institutes operated efficiently. Participation rates were high and gender equality was almost achieved. There was no problem in the preparation of subject specialists and places were allotted annually for central teacher training institutions in the former Soviet Union. In short, similar to the other CIS countries, Tajikistan inherited a well-organized, state-funded, centralized education system.

Costs of Civil War. With the breakup of the Soviet Union and independence, Tajikistan faced formidable challenges and tasks in the education sector, including:

- providing employment to postsecondary school graduates in a fast-changing economic climate;

- maintaining free and compulsory secondary education against a backdrop of sharply falling funding allocations to education;
- ensuring an adequate number of teachers, despite low salaries and high attrition rates;
- developing legal frameworks, new standards, and curricula;
- publishing new textbooks;
- satisfying the education needs of non-Tajik citizens; and
- ensuring access for the poor.

Many of the pressing problems were in large part the consequences of the civil war that left 55,000 orphans, 26,000 widows, and 195,000 migrants. About 20% of schools were destroyed or looted; a large number of teachers were killed or left the country. The civil war also had a serious psychological effect on children, and many are in need of special treatment.

During the 1990s, Tajikistan experienced significant changes in government financing of education. At the beginning of the decade, the central Government was virtually the only source of funding. When state funds were diverted to the civil war, government revenues fell and funding for education dropped from 22.1% of the national budget (10.7% of GDP) in 1990 to 11.8% in 1999 (2.1% of GDP).

The severe economic crisis, civil war, and weak government structures delayed emergency and rehabilitation assistance from the international community. Foreign assistance to the education sector in Tajikistan began much later than in other CIS countries. While a number of international NGOs were involved in social development since independence, the bulk of external assistance arrived in the second half of the 1990s. United Nations (UN) agencies, World Bank, and ADB have major education projects under way. The focus of external assistance has been on restoring the social infrastructure: rehabilitation of damaged schools, construction of new schools, training of teachers, and textbook provision. The OSI (Tajik Branch) has supported policy developments through the establishment of an Education Reform Support Unit in the Ministry of Education. The donor community has played an important role in easing financial constraints, supporting local NGOs, and protecting the poor. Yet assistance has tended to be biased toward certain regions and coordination of operations has been weak.

Current Education Structure. General education comprises three main levels: elementary (grades 1–4), basic (grades 5–9), and secondary (grades 10–11). Depending on local conditions, schools in some communities are separated into grades 1–9 and 10–11. Since 1994, children 7 years of age at the end of December have been accepted into grade 1. After completing their elementary education, children move on to grade 5. Students who leave school after grade 9 receive a certificate of incomplete secondary education and students who finish any type of secondary school receive a certificate of secondary education.

Article 41 of the constitution and Article 12 of the Law on Education establish 9 years of free, compulsory education for all children in Tajikistan, i.e., general elementary and basic education (grades 1–9). It also guarantees free general secondary education in all state schools (grades 10–11). Additionally, the state guarantees free vocational, upper secondary, and postsecondary education for students admitted on a competitive basis.

Table E3: Basic Indicators for the Education Sector in Tajikistan (1995–2000)

Subsector	Indicator	1995/96	1996/97	1997/98	1998/99	1999/2000
Preschool Education	Kindergartens, etc.	555	601	562	562	523
	Pupils	78,000	71,300	61,300	56,000	51,100
	Teachers	6,500	6,615	—	3,996	4,957
	Pupil/teacher ratio	12	11	—	14	10
Elementary, Basic, and Secondary Education	Total schools	3,406	3,434	3,474	3,515	3,547
	Total pupils	1,322,800	1,340,000	1,388,900	1,451,300	1,479,300
	Nonstate schools[a]		4	5	6	8
	Pupils		492	542	812	1,012
	Female (%)		32.7	32.1	27.5	30.4
	Grades 1–4 schools	654	663	664	663	675
	Grades 1–9 schools	747	800	812	834	829
	GER grades 1–9 (%)	89.37	89.5	89.1	87.4	86.8
	Grades 1–11 schools	2,005	1,967	1,993	2,012	2,035
	GER grades 10–11 (%)	38.6	34.1	30.9	39.0	43.9
	Total teachers	92,800	92,600	91,300	94,900	96,800
	Pupil/teacher ratio	14.3	14.5	15.2	15.3	15.3
Basic Vocational Secondary Education	Institutions	74	74	72	72	72
	Students	30,600	27,600	26,000	24,700	23,800
	Teachers	—	—	—	—	—
	Student/teacher ratio	—	—	—	—	—
Secondary Vocational Education	Institutions	44	47	44	42[b]	48[b]
	Students	26,800	23,500	19,900	19,400	23,200
	Teachers	2,808	2,191	2,341	2,114	2,125
	Student/teacher ratio	9.5	10.7	8.5	9.2	10.9
Higher Education	Institutions	25	25	25	26	29[b]
	Students	74,000	76,000	76,700	75,500	79,200
	Girls (%)	28.9	25.8	26.1	25.7	25.1
	Teachers	—	—	—	5,900	5,900
	Student/teacher ratio	—	—	—	12.8	13.4

— = not available, GER = gross enrollment rate.

[a] In formal statistics, the word "nonstate" (collective, community, etc.) is used instead of "private".

[b] Includes branches of institutions.

Source: Department of Planning and Economic Development, Ministry of Education.

Table E4: Expenditure on Education by Subsector
(1995 and 1997–2000), TJS million

Indicator	1995	1997	1998	1999	2000
TEE	1,524.1	13,405.1	22,373.9	27,929.2	41,606.6
Preschool education	210.5	1,261.7	1,782.8	1,753.6	2,022.8
As % of TEE	13.8	9.4	8.0	6.3	4.9
General secondary education	875.1	8,015.3	14,994.6	19,290.5	33,311.4
As % of TEE	57.4	59.8	67.0	69.1	80.1
Specialized secondary education	25.2	275.9	341.4	394.2	95.3
As % of TEE	1.7	2.1	1.5	1.4	0.2
Higher education	153.1	948.1	1,736.1	1,759.5	3,345.5
As % of TEE	10.0	7.1	7.8	6.3	8.0

TEE = total education expenditure.
Source: State Statistical Committee of Tajikistan. 2001. *Finance of Tajikistan and Annual Report of the Republic of Tajikistan Up to Its 10th Anniversary*. Dushanbe.

Fall in Preschool Enrollment. Special attention needs to be given to preschool education because its development lags behind the needs of the population. In 1991, there were 944 preschool institutions with an enrollment of 141,100 children; by 1999/2000, there were 523 kindergartens with an enrollment of 51,100 children (Table E3). This is partly because, during the civil war, many kindergartens and day care centers were looted and destroyed and 152 of the 900 preschool centers in the country were closed. Many are still in a poor state of repair and, especially in rural areas, do not meet adequate sanitary standards. For example, 26.3% lack central heating, 23.9% do not have an adequate water supply, and 34.7% lack a sewage system.

The proportion of total public expenditure on education going to preschool education declined from 13.8% to 4.9% between 1995 and 2000, as shown in Table E4. The main issues constraining the growth of preschool education are of a financial nature: low salary (preschool teachers in some areas earn only 15–20% of what teachers at higher grades in those areas earn, with an average monthly salary of $5), failure to attract students into preschool teacher training programs, lack of self-education materials and teachers' guides, and lack of funding for staff training and retraining.

General Education. In terms of enrollments, general education suffered less than other sectors. Student numbers increased, a trend that did not, though, prevent a decline in gross enrollment rates in the second half of the 1990s, while the share of general education in total education expenditure increased considerably from 57.4% in 1995 to 80.1% in 2000.

A broader range of programs has been introduced in different types of education institutions, providing students with a greater selection of options. In addition to conventional secondary schools, lyceums, gymnasiums, and colleges have been established. New education standards have been established and new

textbooks have been developed. The Ministry of Education (MoE) developed new provisions for education including curricula and teaching programs in 1994. Due to the political and economic changes brought by the transition, these were not recommended for implementation until 2000. These provisions allow for the introduction of new subjects and provide for the possibility of differentiated forms of study and for optional and group lessons. The Government adopted Decree No. 266, on Approving the State Standards of General Secondary Education in Tajikistan, in June 1997. The Decree established the national standards governing the subjects to be studied and their content, as well as the requirements for graduation.

Following the Law on Education and the Concept of National Education, the development of new textbooks in the Tajik language also accelerated. In an effort to defray its education expenditure, in May 1996, the Government issued Decision No. 12, on Free Sale of Secondary School Textbooks Through a Trade Network. This Decision ended the Government's responsibility to provide free textbooks to all children, transferring it to families, though in fact, most families simply cannot afford to buy textbooks.

Higher Education. The number of postsecondary institutions increased from 13 in 1991 to 30 in 2000 and student enrollment increased from 69,300 to 79,200. The share of the subsector slightly declined from 10% to 8% between 1995 and 2000. This growth reflects the changing demands of the workplace: some of the new institutions offer training in specialized areas such as technology, tax, law, and commerce. In 2001, about 40% of students were paying tuition fees. This move has helped improve the financial situation of colleges and universities. In 1991, the Russian-Tajik (Slavonic) University, which follows the Russian higher education system, opened and several new colleges or branches of existing universities have been established in large towns and regional centers. College and university instruction is conducted in Tajik, Russian, and Uzbek.

The structure of academic programs in higher education institutions (HEIs) has been revised to incorporate bachelor's and master's degrees. Technical schools have been transferred to universities as an initial step toward upgrading professional training.

Since the Government does not have sufficient funds to create new universities or training programs, HEIs have had to meet these challenges by using their existing academic staff. While HEIs have gained the right to open new branches and offer academic programs in new areas, education leaders face questions about how best to proceed: (i) When and under what conditions is it possible to introduce new academic programs? (ii) How should the need for new programs be assessed? and (iii) What is the optimal number of academic staff for these new programs?

Gender Concerns. The difficult economic and social situation during the transition period resulted in a loss of gender equity. Fewer girls are enrolling and remaining in school, especially at the secondary level. In many respects, this drop

in girls' enrollment in grades 10–11 was prompted by the Law on Education, which established compulsory education only up to grade 9. In specialized secondary schools and universities, the percentage of girls accepted has decreased annually mainly because of families' preference to educate boys during periods of financial distress. In addition, in some districts girls are not allowed by their parents to attend secondary school because of their religious beliefs. Consequently, improving access for and retention of girls is again a challenge facing the education system, especially as education is one of the main mechanisms for promoting gender equality in the country. The Government's goal is to provide girls and boys with equal access to education. To help achieve this, in May 1997 MoE approved a resolution on sequencing the annual acceptance of a certain number of girls from the most remote villages to HEIs without entrance exams (Resolution No. 612) and allocated 256 places at HEIs for girls from remote regions.

Rural School Concerns. The low quality of education is a serious concern in rural areas. Besides the fact that rural communities are poorer and cannot support school initiatives and improvement, some reasons relate to the way schools are organized. Typically, the curriculum is not fully implemented in rural schools, a problem escalated during the cotton harvesting period (in September and October, secondary school students in the cotton planting regions are mobilized to assist in the harvest). The Resolution on United Curricula of General Schools in 2000/01 and Further Years offers the possibility of changing the length of vacations, but that option is rarely used. To shorten their length and increase the number of weeks at school, the consent of the regional education department and MoE must be secured. (District and town education departments do not yet have autonomy in organizing the school schedule.) An extension of the school year also means an additional burden for teachers, an option that they do not favor.

Language Issues. Tajikistan was the first country in Central Asia to pass legislation adopting a national language other than Russian. The Law on Language (1989) established Tajik as the official language and Russian as its international language. All students have the right to choose their language of study. At the start of the 1998/99 school year, instruction was offered in Tajik, Russian, Uzbek, Kyrgyz, and Turkmen. In places with high concentrations of minority groups, schools can offer instruction in these minority languages. During the instability following independence, many ethnic groups left the country and, as a result, the number of non-Tajik schools declined: the number of Russian-language schools dropped from 6.8% of the total in 1991/92 to 2.6% in 1995/96. At present, 1,081 schools teach in Uzbek, 144 in Russian or a mix of Russian and other languages, 41 in Kyrgyz, and 7 in Turkmen.

Schools that offer instruction in a language other than Tajik tend to base their instruction on curricula and programs adapted from other countries and use existing instructional materials in, what is in Tajikistan, a minority language. These curricula and instructional materials are then adapted to meet the standards

established by MoE (e.g., Tajik language, history, and geography). The universities and teacher training colleges can train specialists for Russian- and Uzbek-language schools in Tajikistan, but teachers for Kyrgyz- and Turkmen-language schools must be taught by universities in the Kyrgyz Republic and in Turkmenistan. Similarly, MoE has had considerable difficulty in training pedagogical specialists for Tajik-language schools operating in other countries of the region (e.g., Russia, Uzbekistan, and Turkmenistan).

Some of the newly independent states changed the language and/or alphabet after independence. These changes had considerable implications for the education systems both in those countries and other countries in the region, especially as regards textbook design and production. For example, when Uzbekistan changed from the Cyrillic to the Roman alphabet, many Uzbek schools in Tajikistan continued using the old textbooks written in Cyrillic, as they could not secure textbooks or qualified teachers.

Teacher Supply and Demand. Because of poor salaries, many teachers left the teaching profession for jobs in other fields, resulting in a severe shortage of qualified staff throughout the country. In 1998, the average salary of employees in the education sector was $6.90 a month while a living wage was estimated at $28.30 per month.

Between 1995 and 1997, some 6,788 HEI students interrupted their studies to be recruited as teachers in secondary schools as part of the implementation of MoE's Order on Attraction of High Pedagogical Institution Graduates into Pedagogical Work. This measure, however, has proven unworkable: students were clearly reluctant to work in remote locations and under difficult conditions. During the first year of implementation (1996), 47.6% (628 out of 1,320 graduates) did not arrive at their assigned schools; this percentage increased to 49.0 (2,147 out of 4,378) in 2000. Graduates found ways of securing false certificates claiming that they had satisfied their teaching requirement.

In 2001, according to the State Statistical Committee, Tajikistan had 98,500 general school teachers in total, of whom 44.8% were women. A total of 41,130 teachers were employed in elementary schools, of whom 55.2% had higher education, 3.7% had attended but not completed higher education, 27% had completed specialized secondary education, and 14.1% had completed general secondary education. The shortage of teachers is estimated at 11,000–12,000. The greatest need was for elementary school teachers, followed by English-language teachers, and teachers of Russian and Tajik languages.

3. Legal and Policy Framework

Education reforms in Tajikistan started later than in other Central Asian countries—though this delay could be used as an opportunity for policy makers and others to learn from those other countries' experiences. In the absence of full-fledged sector policy and programs, the education policy framework is essentially

based on legislation and presidential decrees. The legislation governing the education system and its financing are determined by Parliament. The Government implements presidential decrees and parliamentary decisions, oversees the distribution of government funds, establishes priorities, and sets standards for the education system. The Government created a number of interdepartmental commissions and councils to address issues related to young people and women. More recently, it has recognized the need for a separate commission to address teacher recruitment and retention problems.

The 1993 Law on Education and its Amendments. The adoption of the Law on Education in 1993 and its amendments in 1996 and 1999 posed a new legal base for reforming education. This Law expanded the rights and autonomy of education institutions, and promoted multichannel financing of education allowing for financial support from other sources (e.g., parents, sponsors, enterprises, international organizations, and foreign investors). It also helped improve the management of the education system by transferring more of the administrative control to local education boards and institutions. A state certification service has been created, rules for establishing schools have been updated, and procedures for school certification, accreditation, and licensing have been approved. The economic and financial policies governing education have also been reconsidered to ensure the reconstruction of the education system. The Government has improved the social protection of those working in the education sector by increasing salaries and introducing supplementary payments for some aspects of teachers' work and by providing housing and municipal privileges.

The 1995 Concept of National Education. The Concept of National Education defined the purposes, tasks, and future direction of the system. Its implementation was accomplished by MoE through its Order on Approval of Measures of the Ministry of Education on Implementation of the Concept of National Education, in January 1995. This document (i) lays out the organization, control, preparation, and improvement of teachers' professional skills; (ii) specifies the curriculum; and (iii) plans for the provision of textbooks consistent with Order No. 88 of May 1993, on Improvement of the Development and Ordering of Programs, Textbooks, and Methodological Literature for Secondary Schools, and procedures for conducting research on the effectiveness of the education system.

Two issues of significant concern to MoE, reflected in several orders and resolutions, are inadequate teacher supply and the need to upgrade the qualifications of the existing teaching force. In an effort to address the shortage of teachers, the Government approved Order No. 406 in June 1995, on Some Measures Improving the Use of Young Experts after Graduation from Higher and Special Secondary Education Institutions. This order obliged teacher training graduates who have received government funding to work within the education system for at least 3 years. In order to upgrade teaching skills, the Government established rules for the nature and frequency of teacher certification, specified the

functions and priorities of the certification board, and identified candidate entry requirements.

4. Focus on Finance and Teacher Compensation

The most pressing issue of the education agenda during the transition period was the reduced budget allocation to education and the consequent very low level of teacher salaries, which resulted in the loss of highly qualified teachers and crumbling morale among those who remained. Despite recent annual salary increases, the problem of teacher compensation remains the most pressing one. Adequate teacher salaries cannot be funded from the national budget and alternative funding for education needs to be secured. The financial pressures prompted a number of innovations and coping strategies, discussed in the following paragraphs.

Private Schools. While the creation of private schools has been slow in comparison with other countries in the region, private gymnasiums and lyceums have been opened and the number of students wanting to pursue their education in private institutions has continued to increase. The expansion of the private education sector will ultimately depend on demand and ability of parents to fully cover education costs. In the present conditions, the demand for private education remains limited. The limited number of private schools that emerged were able to raise teacher salaries, recruit more experienced teachers, and provide better instructional materials, resulting in a higher quality of instruction.

Fees in Secondary Education. Since 1996, efforts have been made to introduce tuition fees to cover a portion of the costs in some primary and secondary schools. In schools where tuition fees have been partially introduced, parents pay an average of $50 per year—annual private school fees vary between $100 and $300 and private tuition in preschools costs between $80 and $150. In the cities, charging for private tuition has been successful in general because of the higher incomes of urban families. Some state-owned gymnasiums and lyceums are also allowed to charge tuition fees to increase teacher salaries, improve the teaching environment, and purchase instructional materials.

Most government schools have introduced overtime pay for teachers. Schools are also using parental committees to raise additional funds and help in school repairs. All these initiatives have a positive effect on improving the operation of the schools and the quality of education.

The emergence of private preschool institutions, lyceums, and gymnasiums has in theory opened opportunities for improved access and better quality education but since very few parents, particularly in rural areas, can afford tuition fees, expansion of the private sector is slow and is concentrated in the largest cities and industrial areas.

Land for Rural Schools. In rural areas, the introduction of tuition fees in public schools does not appear feasible because of low family incomes. To

support rural schools, some local governments (*hukumats*) have allowed rural communities to allocate land for schools as a means of creating opportunities for income generation. The *hukumats* are made responsible for the use of the land and for the disposition of the agricultural goods produced. The proceeds from the school land are put into the Ministry of Finance district departments' bank accounts in the *hukumats* and used to support teachers and to improve instructional materials. This program has improved the financial situation of rural schools and helped protect rural schools during a time of political and economic transition.

Tuition Fees at Higher Education Institutions. Tuition fees at HEIs are common. The funds generated are used to increase teacher salaries, provide textbooks, offer seminars and conferences, and pay for business trips. This has led many universities to operate from the principle "the more tuition paying students the better". Some universities have favored fee-paying students in their admissions process and applied less rigorous criteria for their entrance and, in some instances, abandoned the admissions test altogether. In 2001, 69% (7,252 out of 10,537) of students entering HEIs were fee paying (MoE 2001). As access to higher education has become increasingly related to ability to pay rather than academic achievement, it is often argued that the admission of poorly qualified fee-paying students has led to a deterioration in the quality of academic programs.

Cost Sharing. Cost sharing between central and local levels has had some negative consequences. In some parts of the county it has worked well but in others less so. Economic growth and living standards differ between the different regions of the country and so the ability of communities to contribute to the support of their local schools varies greatly. In poorer regions, teachers are paid less. This leads to high teacher turnover, recruitment problems, and lower quality schools.

Parent-Teacher Associations. In the past, the role of parental committees was limited and their power in the management of school affairs restricted. This is changing and parents are now finding a greater role in decision making through parent-teacher associations (PTAs). The size and level of development of PTAs remain slow in some communities. There is a growing recognition that, with a clear formulation of their purpose, function, rights, obligations and a clear understanding of its relationship to other groups involved in school management (such as the parental committee and pedagogical council), PTAs can play a major role in supporting schools.

Introduction of Textbook Rental Scheme. With assistance from international agencies, the shortage in textbook production experienced in the mid-1990s has been largely resolved but there are still difficulties in their sale and distribution. Since many parents cannot afford to buy them, MoE has introduced a textbook rental scheme. Textbooks are expected to last for 3 years before needing to be replaced; each year, children are charged one third of the cost of the book.

They must return the textbook at the end of the year so that it can be rented again the following year. The rental fee is used to replace the book at the end of its life.

5. Constraints in Reform Management

Lack of Consensus Building. Many of the reform initiatives adopted at senior levels of government have been developed by a narrow circle of experts and lack wider support. There is some evidence that this is changing and that a more extensive exchange of ideas is developing. For example, before the Concept of Education was adopted as law, it was published in the newspaper *Omuzgor*, inviting discussion. Many suggestions were received. But there was little or no consultation on amendments to the Law on Education, which were developed by experts at MoE and passed on to Parliament for approval.

Lack of Local-Level Capacity. The implementation of the national education policies at the local level is difficult because plans do not necessarily come with financial support and other resources necessary for their implementation. There are also common reports of resistance to and/or lack of understanding of central level decisions despite the fact that in Tajikistan the president appoints both ministers and local governors.

While the direct election of local administrators has some advantages in terms of responsiveness to local interests, having local administrators appointed represents an opportunity to ensure consistency in the implementation of national education policy across the different levels of government.

An important issue is the distribution of responsibilities across the different levels of government. A new organizational structure for MoE was approved in June 2001; its implementation is not yet complete. The unclear delimitation between MoE and local authorities is an obstacle to reform and requires adjustment before successful decentralization can take place.

Data Quality. Other constraints include the lack of accurate and reliable data on education, poor sharing and availability of such information, weak coordination of data collection initiatives, and lack of analytical skills for policy formulation and evaluation. A typical problem is that school authorities understate the number of absent students and/or dropouts because of fear of punishment from MoE for poor school performance.

Cultural and Social Attitudes. Most people understand that changes are necessary to achieve a better and more stable economic situation in the country. As yet, it is too early to expect everybody to have adjusted to these reforms. Some people are nostalgic for the old education system and skeptical about many of the changes now under way, largely because of the difficult conditions under which many people live. Given the limited resources available for education reform, some of these efforts have already failed, fueling this pessimism. These attitudes will need to be overcome if education reform efforts are to succeed.

UZBEKISTAN

1. Education Reforms in the Context of Economic and Social Change

The proclamation of independence by Uzbekistan on 1 September 1991 created the necessary conditions for reforming the structure of the education system and its instructional content. Several legislative and regulatory acts were passed following independence, namely, the Law on Education (enacted in 1992), various normative documents, and new state education standards and curricula. The rationale driving education reform has been the need to adjust the education system to cope with the substantially different socioeconomic goals that followed independence, namely ensuring the economic independence of the Republic of Uzbekistan and the transition from a command to market economy, and promoting the development of a strong democratic state and civil society.

Developing a national system of personnel training was set as a key priority of the overall reform agenda of the Government. This was enshrined in the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 116 of 28 February 1997, on the Results of Socioeconomic Development in 1996 and Priorities for Intensification of Economic Reforms in 1997. In accordance with this Resolution, a decision was made to develop a National Program for Personnel Training (NPPT).

In 1996 and 1997, immediately preceding the beginning of radical change in the education sector, the Government achieved macroeconomic stabilization and economic growth. For the first time since independence, the country resumed GDP growth (by 1.6% and 5.2% respectively), and the volume of capital investment grew (by 7% and 17%, respectively). The legal basis for accelerating the transition to a market economy was completed. A class of entrepreneurs emerged. More than 4,500 joint-stock companies and about 100,000 small, private enterprises were created. Large-scale restructuring of privatized enterprises started. As a result of such market-based changes, the nonstate sector share rose to 68.9% of national income, 53.4% of industrial production, and 97.7% of agricultural production. The share of workers engaged in the nonstate sector by now exceeded 70%.

Economic growth and the transition to a market-oriented economy continued in 1999 and 2000. As in previous years, 1999 was characterized by macroeconomic stability with steady growth of GDP (4.4%), a small budget deficit (1.8%), controlled inflation (1.9% monthly, 22.8% annually), and a foreign trade surplus ($125.1 million). In 2000, GDP grew by 4.3% due to increases in industrial production (6.4%), production of consumer products (7.2%), growth of retail commodity turnover (5%), volume of paid services (13.8%), and volume of agricultural production (7.4%). The Decree of the President of the Republic of Uzbekistan No. 2612 of 2 June 2000, on Measures for Implementation of the

Program of Liberalization and Intensification of Reforms in Political, Economic and Spiritual Spheres of Society and Ensuring Security of the Country, is being implemented. The country has achieved grain independence and is on the way to energy independence. Steps are being taken to move from exports of raw cotton to higher value-added processing and production of end products.

Despite the positive trends of socioeconomic development in the second half of the 1990s, a number of shortcomings and persistent problems hindered the pace of reforms. A major obstacle was the shortage of qualified staff prepared for the emerging market-based structure, and further intensification of economic reforms undoubtedly increased the demand for specialists. However, the attitude toward nonstate ownership changed slowly, and while many enterprises and other economic entities were formally restructured, free competition never materialized; state-owned property was not managed effectively; the principles of the market economy were not introduced effectively; and unjustified interference of state organs in the activities of economic entities continued, and barriers to their greater economic independence remained.

Some of the priority directions for strengthening political and socioeconomic reforms are to:

- ensure macroeconomic and financial stabilization through an effective use of state budget funds and a rapid reduction of inflation;
- pursue "liberalization" in the political, economic, social, and intellectual spheres;
- develop a competitive economic environment in both industry and agriculture;
- decentralize state administration;
- improve the effectiveness of public institutions; and
- guarantee the social security of citizens and their right to employment.

2. National Program for Personnel Training

Formulation of the NPPT. Mechanisms for developing the NPPT were contained in the Resolution of the Cabinet of Ministers No. 99-F of 10 March 1997. This Resolution established a Republican Commission for Development of the NPPT comprising representatives of concerned ministries and agencies, officials from the Office of the President and the Cabinet of Ministers, and representatives from scientific and education institutions as well as public organizations and foundations. Working groups were formed for the development of each part of the program. The Commission received information from the regions, which was analyzed by its working groups and then passed on to the analytical group of the Cabinet of Ministers. The information was then sent to the group in the Office of the President, where it was reviewed and sent back to the regions for their amendment and for the collection of additional data.

By the beginning of July 1997, a new National Model of the System of Personnel Training had been developed for discussion and approved at the Oliy Majlis. In July and August 1997, the Cabinet of Ministers set up a special analytical group of highly qualified experts who prepared a draft document in consultation with parliamentary committees and commissions. The draft was sent for discussion to ministries, offices, corporations and associations, *oblast* and *raion* administrations, and education institutions. Simultaneously, the draft was discussed in the mass media by education authorities. Members of commissions, working groups, and officials from the ministries of public and higher education were sent to various local government bodies to ensure nationwide discussion of the program. On 29 August 1997, at the ninth session of the Oliy Majlis, the Law on the National Program for Personnel Training was adopted. On 6 October 1997, the President signed the Decree on Radical Reform of the System of Education and Personnel Training and the Education of a Healthy Generation, which defined priority measures for implementation of the NPPT.

NPPT Objectives and Priorities. The basic objectives of the NPPT are: (i) to ensure that the education process responds to the personal interests, legislative needs, and organizational, psychological, and pedagogical conditions necessary for the formation of national culture; (ii) to adapt the attitudes of society toward the choice of individuals to study in subsequent education and professional programs; and (iii) to help develop today's citizens so that they are aware of their responsibilities to the state, society, and their families. To achieve these objectives, the NPPT envisages a fundamental reorganization of the structure and content of education based on the country's social and economic development needs. NPPT priorities include:

- reorganization of the structure and content of the education and training systems based on the country's social and economic development needs;
- stronger links between education, science and enterprises;
- requalification of teachers along with improvement in their social status;
- introduction of new mechanisms for monitoring education quality and licensing education establishments;
- reform in funding mechanisms aimed at developing extrabudgetary resources; and
- development of international cooperation in the field of education and research.

NPPT Implementation Stages. Implementation of the NPPT is expected to occur in three stages. Stage 1 (1997–2001) involves the creation of legal, personnel, pedagogical, and financial conditions for reform while preserving components of the existing personnel training system. The emphasis is on the development of new standards, curricula, teaching materials, teacher education, and financing reforms to develop nonstate funding sources. Further directions for implementation of the NPPT will be identified on the basis of monitoring of

progress during the first stage of the process. It is expected, however, that Stage 2 (2001–2005) will be characterized by the full transition to a compulsory 12-year education structure. Stage 3 (2005 and beyond) involves improvement and further development of the system of personnel training on the basis of experience gained with socioeconomic development of the country. Particular achievements in this stage include the supply of up-to-date methodological materials, the computerization of the education process, and the establishment of national elite institutions.

Reorganization of the Education System under NPPT. Starting from the 1998/99 school year, compulsory basic education has been extended from 11 to 12 years and a new continuous system of education has been introduced. The new education structure includes:

- preschool education for 3–6/7 year olds;
- 9 years of general education for primary grades 1–4 and secondary grades 5–9;
- 3 years of secondary specialized vocational education (grades 9–12), provided in professional colleges and academic lyceums; and
- two principal levels at higher education (bachelor's and master's degree studies).

After graduation from grade 9, students can choose a field of study in an academic lyceum or professional college. It is expected that 10% of grade 9 graduates will go to academic lyceums and 90% to professional colleges. In accordance with the NPPT, 223 centers for professional orientation and psychological and pedagogical diagnostics have been established under all *raion* and city departments of education. These centers are charged with giving guidance and counseling to school children and their parents in (i) choosing further education steps, (ii) solving problems of personal development, and (iii) helping children with special needs.

Basic indicators of each subsector are provided in Table F1.

Table F1: Basic Indicators for the Education Sector in Uzbekistan (1997–2001)

Subsector	Indicator	1997/98	1998/99	1999/2000	2000/01	2001/02[a]
Preschool Education	Nursery schools	7,546	6,911	6,742	6,704	6,700
	Urban (%)	60.3	59.0	58.0	58.0	58.0
	Pupils	681,200	615,795	608,517	624,652	625,000
	Male (%)	47.5	47.4	47.7	47.1	47.0
	Teachers	71,252	65,780	63,604	64,123	64,159
	Pupil/teacher ratio	9.6	9.4	9.6	9.7	9.7
Primary Education: Grades 1–4	Grades 1–4 schools	203	223	212	207	190
	Urban (%)	9.4	11.7	12.3	11.1	11.6
	Primary school pupils	27,953	30,597	29,878	30,684	31,531
	Total grades 1–4 pupils	2,528,920	2,569,852	2,601,953	2,597,886	2,567,685
	Male (%)	51.0	51.0	51.5	51.1	51.3
	Repetition rate (%)	0.09	0.09	0.07	0.05	0.04
	Classes	105,896	105,744	97,724	97,382	96,445
	Urban (%)	27.6	27.3	27.1	30.0	30.3
	Pupil/class ratio	23.9	24.3	26.6	26.7	26.6
	Teachers	119,339	122,634	122,768	122,902	120,580
	Pupil/teacher ratio	21.2	21.0	21.2	21.1	21.3
Basic (elementary and lower secondary) Education: Grades 1–9	Grades 1–9 schools	1,850	1,855	1,922	1,966	1,977
	Urban (%)	9.0	8.7	9.4	10.0	10.8
	Basic school pupils	490,433	492,428	533,347	606,097	594,892
	Total grades 5–9 pupils	2,353,863	2,460,579	2,517,935	3,047,086	3,101,244
	Male (%)	50.4	50.6	51.5	51.2	50.8
	Repetition rate (%)	0.17	0.13	0.13	0.13	0.07
	Classes	95,860	98,983	90,699	110,626	113,840
	Urban (%)	29.2	28.7	28.7	29.1	28.2
	Pupil/class ratio	24.6	24.9	27.8	27.5	27.2
	Teachers	250,084	256,343	251,254	279,125	289,400
	Pupil/teacher ratio	9.4	9.6	10.0	10.9	10.7
Secondary (elementary, lower and upper secondary)[b] Education: Grades 1-11	Grades 1-11 schools	6,966	7,539	7,497	7,466	7,478
	Urban (%)	21.1	23.8	23.6	23.8	23.6
	Secondary school pupils	4,924,496	5,118,275	5,222,197	5,380,801	5,408,623
	Total grades 10–11 pupils	560,099	610,869	665,534	372,610	366,117
	Male (%)	50.5	51.7	50.5	49.9	25.7
	Repetition rate (%)	0.15	0.12	0.12	0.13	0.02
	Classes	25,154	25,823	26,262	15,181	14,830
	Urban (%)	27.1	24.7	25.2	25.0	25.6
	Pupil/class ratio (%)	22.3	23.7	25.3	24.5	24.7
	Teachers	65,623	66,876	68,281	40,989	37,701
	Pupil/teacher ratio	8.5	9.1	9.7	9.1	9.7
Total General Secondary Education	Total schools	9,019	9,617	9,631	9,639	9,645
	Total pupils	5,442,882	5,641,300	5,785,422	6,017,582	6,035,046
	Total teachers	435,046	445,853	442,303	443,016	447,681
	Pupil/teacher ratio	12.5	12.7	13.1	13.6	13.5

Continued on next page

Subsector	Indicator	1997/98	1998/99	1999/2000	2000/01	2001/02[a]
Specialized and Vocational Technical Education	Institutions	444	448	374	315	294
	Urban (%)	35.6	36.6	38.8	37.8	40.0
	Students	227,393	236,853	232,805	207,958	109,897
	Male (%)	58.6	57.8	57.4	55.1	61.8
	Teachers	19,694	19,838	18,268	15,386	12,184
	Student/teacher ratio	11.5	11.9	12.7	13.5	9.0
Specialized Secondary Education	Institutions[c]	259	260	224	194	181
	Urban (%)	62.5	62.7	61.6	64.4	58.0
	Students	224,793	249,111	266,841	254,821	211,768
	Male (%)	45.4	47.9	48.4	47.6	47.3
	Teachers	16,517	17,498	17,224	16,102	17,459
	Student/teacher ratio	13.6	14.2	15.5	15.8	12.1
Professional Colleges	Institutions	14	20	120	241	303
	Urban (%)	100.0	70.0	57.5	57.3	57.0
	Students	1,699	3,856	30,862	59,525	216,762
	Male (%)	63.2	63.1	62.5	62.5	66.6
	Teachers	283	955	4,980	9,147	13,849
	Technical instructors	27	92	219	2,377	3,301
	Student/teacher/TI ratio	5.5	3.7	5.9	5.2	12.6
Academic Lyceums	Institutions	10	15	30	46	47
	Urban (%)	100	100	100	100	100
	Students	530	1,806	7,337	9,771	17,516
	Male (%)	67.7	68.0	66.4	68.3	67.4
	Teachers	293	626	1,369	1,766	2,391
	Student/teacher ratio	1.8	2.9	5.4	5.5	7.3
Total Specialized and Vocational Secondary Education	Total institutions	727	743	748	796	825
	Total students	454,415	491,626	537,845	532,075	555,943
	Total teachers	36,814	39,009	42,060	44,778	49,184
	Student/teacher ratio	12.3	12.6	12.8	11.9	11.3
Universities	Institutions	16	17	17	18	18
	Urban (%)	93.8	94.1	94.1	94.4	94.4
	Students	63,010	72,808	74,687	74,787	79,757
	Male (%)	54.7	57.5	59.1	59.1	59.1
	Teachers	7,283	7,197	8,066	8,165	8,534
	Student/teacher ratio	8.7	10.1	9.3	9.2	9.3
Higher Education (including universities)	Institutions	60	60	61	61	61
	Urban (%)	96.7	96.7	96.7	96.7	96.7
	Students	158,206	158,686	166,466	183,576	195,776
	Male (%)	62.1	61.9	62.6	62.2	64.4
	Teachers	17,791	17,435	16,998	18,432	19,266
	Student/teacher ratio	8.9	9.1	9.8	10.0	10.2

[a] Preliminary data. [b] Grades 10–11 in secondary schools will be abolished gradually and all students completing grade 9 will apply to academic lyceums or professional colleges in accordance with the National Program for Personnel Training. [c] All specialized secondary education institutions (SSEIs) or *tekhnikums* and professional technical specialized schools are to be reorganized into professional colleges and academic lyceums in 2001–2003.

Education Finance. Since the adoption of NPPT in 1997, the effort of the Government to adequately finance education has been remarkable. As can be seen from Table F2, between 1995 and 1999 total expenditure on education increased from 7.6% to 10.4% of GDP; similarly, as a share of total state expenditure, it increased from 23.2% to 32.2%. The increase between 1998 and 1999 is accounted for mainly by the quadrupling of expenditure on buildings. Expenditure on salaries and stipends increased from 49% to 72% of recurrent expenditure, with a consequent decline in expenditure on supplies, services, and equipment. In 2001 education expenditure amounted to 11.8% of GDP and 36.2% of total state expenditure.

Table F2: Education Expenditure as Share of GDP and Total State Expenditure (%)

	1995	1996	1997	1998	1999
Share of GDP					
Recurrent expenditure	7.1	7.7	7.3	7.4	7.8
Salaries and allowances	3.1	3.9	3.8	4.2	4.8
Supplies and services	1.3	1.7	1.4	1.1	0.8
Training	0.3	0.2	0.4	0.2	0.2
Stipends	0.4	0.7	0.6	0.7	0.8
Catering	1.3	0.6	0.7	0.8	0.8
Equipment and consumables	0.2	0.2	0.1	0.2	0.1
Refurbishment/maintenance	0.2	0.3	0.2	0.2	0.2
Capital expenditure	0.5	0.6	0.6	0.7	2.6
Total	7.6	8.3	7.9	8.1	10.4
Share of Total State Expenditure					
Recurrent expenditure	21.8	21.1	22.4	22.3	24.2
Salaries and allowances	9.5	10.8	11.6	12.6	14.8
Supplies and services	3.9	4.6	4.3	3.3	2.6
Training	0.9	0.7	1.1	0.7	0.7
Stipends	1.2	1.9	2.0	2.1	2.5
Catering	4.0	1.6	2.2	2.4	2.4
Equipment and consumables	0.6	0.5	0.3	0.5	0.4
Refurbishment/maintenance	0.7	0.8	0.5	0.7	0.5
Capital expenditure	1.4	1.7	1.9	2.1	8.0
Total	23.2	22.8	24.3	24.4	32.2

Trends in recurrent expenditure on education by subsector between 1997 and 2000 compared with 1991 can be seen in Table F3. On average, recurrent public expenditure on preschool, general, and other education institutions increased in the latter part of the decade compared with 1991, while recurrent expenditure on higher education institutions (HEIs) declined following the process of securing nonbudget funds. There has also been a slight decline in the proportion of

expenditure on specialized and vocational secondary education, which is somewhat in contrast to the priority given to this subsector since 1997.

Table F3: Recurrent Expenditure on Education by Subsector, 1991 and 1997–2000

Subsector	1991	1997	1998	1999	2000	Average 1997–2000
Preschool institutions	14.0	16.8	15.3	15.7	14.8	15.7
General education schools	53.4	58.2	57.1	56.8	55.0	56.8
Specialized and vocational secondary education[a]	15.2	13.6	14.9	15.7	12.8	14.3
Higher education institutions	11.6	5.5	7.0	6.6	7.1	6.5
Other education institutions	5.7	5.9	5.6	5.3	10.3	6.8

[a] Including professional technical schools and secondary specialized and professional institutions.

NPPT Monitoring Mechanisms. The Republic Commission on Implementation of the NPPT was charged with monitoring its implementation by Presidential Decree of 6 November 1997. The organizational structure of the monitoring system has been approved and the main working group on monitoring of education reforms and the territorial working groups on monitoring under the Council of Ministers of the Republic of Karakalpakstan, *oblast* administrations, and Tashkent city have been established. The main working group operates under the Social Complex of the Cabinet of Ministers to improve monitoring studies and carry out expert appraisal of government assignments on NPPT implementation. The main responsibilities of the territorial working groups consist of collecting and processing information in a database and submitting regular reports to the main working group.

3. Major Reform Achievements

Definition of New State Education Standards. The process of education standards development started with the implementation of the Law on Education (1992) and the Resolution of the Cabinet of Ministers No. 406 of 12 August 1993. Standards principally aim at specifying academic requirements and learning outcomes for graduates for each level and type of education. To unify the process of development of state education standards and define the procedure for their approval and introduction, on 5 January 1998 the Cabinet of Ministers adopted Special Resolution No. 5 on the Development and Introduction of State Education Standards within the continuous education system. The basic requirements for state education standards are to:

- take into account the human resource requirements for the country's socioeconomic development as well as learning from international experience;

- specify norms for learning outcomes and teaching loads;
- be coherent across the types, levels, and fields of education;
- describe the elements of curricula; and
- undergo testing prior to implementation.

The Cabinet of Ministers Resolution No. 390 of 16 August 1999 approved state education standards for general secondary education (grades 1–9), including syllabi for 23 subjects, and a new curriculum. All education institutions have been provided with documents explaining regulations and procedures. In addition, 350,000 copies of these documents have been disseminated through the bulletin *Talim Tarakkiyeti*. To assess the effectiveness of state education standards and their improvement, all *oblast* departments of public education have set up groups for monitoring general secondary education, coordinated by the relevant department in the Ministry of Public Education (MPE).

On 16 October 2000, the Resolution of the Cabinet of Ministers No. 400 approved state standards for specialized and vocational secondary education. At the level of higher education, a modern structure has been created—bachelor's degree programs of 4 years duration and master's degree programs for an additional 2 years. A total of 290 state education standards for bachelor's and master's degree programs, as well as new requirements, curricula, and programs, have been developed. The system for appraisal of students' knowledge and for control of the quality of their education is being improved (including monitoring compliance of student knowledge with state standards): written examinations have been introduced as an effective and objective means of assessing both learning achievement and teacher performance.

Introduction of a Compulsory 12-Year Education Cycle. The gradual implementation of a 12-year compulsory education system was built around the creation of two new types of institutions providing 3 years (grades 10–12) of instruction at senior secondary level: academic lyceums and professional colleges. The implementation of the new system requires the mobilization of considerable resources for developing norms for the operation of new institutions as well as new education standards, training and retraining qualified teachers (both domestically and overseas), and building or refurbishing existing institutions. (The network of colleges and lyceums will consist of 1,611 professional colleges and 181 academic lyceums, including 815 new colleges and 116 new lyceums.) The Center for Specialized and Vocational Secondary Education has been established within the Ministry of Higher and Secondary Specialized Education (MHSSE) to oversee the development of academic lyceums and professional colleges. It provides management staff and ensures provision of qualified professors, teachers, and technical instructors. It also coordinates activities related to establishing and operating education institutions, and ensures the development and introduction of state education standards, uniformity of training programs, and training and retraining of teaching staff.

Introduction of a New Generation of Textbooks and Textbook Rental Scheme. A new generation of grade 1–9 textbooks in Roman script was introduced based on the new state education standards. In 1999, 182 titles (about 17 million copies) and in 2000, 251 titles (17.7 million copies) were published in seven languages: the primary language of instruction is Uzbek (86.9%), followed by Russian (5.2%), Kazakh (2.6%), Karakalpak (2.5%), Tajik (2.1%), Kyrgyz (0.4%), and Turkmen (0.2%). All children from low-income families and all grade 1 pupils are provided with free textbooks and other learning materials. Students in other grades have to bear the costs of textbooks (the system of universal and free provision of textbooks was abolished in 1997). The ability of parents to pay for textbooks has become a major problem. The national Mother and Child Program, approved by Resolution of the Cabinet of Ministers No. 68 of 5 February 2001, introduced a textbook rental scheme. Within the framework of an ADB-funded project, MPE started implementing the scheme in 2001/02 in 14 *raions*. The pilot project covers about 240,000 students from 575 schools. Through the rental scheme, parents rent textbooks from school libraries for 1 year. The fee, equivalent to about 25% of the market price of the textbooks, is deposited into a special school bank account feeding a revolving fund, which is used exclusively for the purchase of new textbooks. At the end of the school year, all textbooks are returned to the school library. The scheme increased the availability and affordability of new textbooks. The durability and pedagogical quality of the rental scheme textbooks were also considerably improved so as to allow schools to use them for 4 years. It is expected that the rental scheme will be financially sustainable and extended to other parts of the country.

Creation of National Foundations and Institutions. A number of national foundations have been established with the support of the Government to provide impetus in particular reform areas. These include (i) the Ustoz Foundation, supporting the retraining and upgrading of teacher qualifications, particularly overseas; (ii) the Umid Foundation, supporting the training abroad of talented students; (iii) the Makhalla Foundation, involved in education programs and social assistance at the community level; and (iv) the Ma'naviyat va Ma'rifat, Oila, Soglom Avlod Uchun, and ECOSAN centers supporting the implementation of specialized education programs in family, health, and environment issues.

Secondary Specialized Education Teacher Training and Retraining. A program of selection, attestation, training, improvement of qualifications, and retraining of managers and teaching staff was launched to staff academic lyceums and professional colleges with qualified teachers. To motivate existing teachers in academic lyceums and professional colleges, as well as to attract new staff with higher qualifications, in compliance with the Resolution of the Cabinet of Ministers of 21 August 2000, the salaries of teachers in specialized and vocational secondary education institutions were increased by an average of 40%. Since 1999, HEIs started to train technical and pedagogical staff for academic lyceums and professional colleges in 89 fields of bachelor's degree studies—9,000 students

are enrolled annually—and 2,985 professors and teachers have taken part in the courses to improve their qualifications in major HEIs in the last 3 years. A total of 38 specialized centers for professional development have been established in all regions: 14,900 teachers who came to academic lyceums and professional colleges from general secondary schools, specialized technical schools, and professional technical schools have been trained in these centers in the last 3 years.

4. Main Constraints in Reform Management

Information Flows. Three kinds of information are generated: statistics, reports on the implementation of government regulations (e.g., decrees and resolutions), and special-purpose data. The Law on State Statistical Information guarantees reliable and comprehensive information. Enterprises and institutions, regardless of ownership, are required to submit information to the appropriate authority by set dates. Statistical data encompass material, technical, and human resources of institutions. With more than 17,000 education institutions and a total of 58 data forms in all, the coverage of statistical data in the country is huge. The main users of statistics are the Ministry of Macroeconomics and Statistics, the Analytical Department of the Cabinet of Ministers, MHSSE, and MPE. Reports on the implementation of reforms—and more specifically government decrees and resolutions—are prepared for the Office of the President and the Cabinet of Ministers. Improving information systems, including more timely availability of reliable data, requires greater computerization of data. Another important information-quality issue is related to the behavior of data producers and collectors who tend to report mainly positive developments, as per approved projections and plans. Information flows from the bottom upward are well organized but top-down flows are inefficient due to lack of communication between key ministries, departments and their local subdivisions, education institutions, and social partner organizations. Consequently, many education institutions have insufficient information on government decisions, analytical data, and regulations issued by central- and *oblast*-level senior authorities.

Budget Processes. Financial departments do not apply modern budgeting and costing techniques but use those inherited from the former Soviet Union. The existing rules and regulations are conducive to rigidities and inertia in budget allocations: appropriated funds have to be used strictly within budget lines. The budgeting process begins with presentation of budget proposals by individual education institutions to relevant local administration finance and planning departments or government structures (i.e., the bodies to which they are accountable—*raion*, *oblast*, or ministry). After reviewing budget estimates received from local administrative bodies, the responsible ministries send them to the Ministry of Finance, which presents an overall budget estimate to the Cabinet of Ministers for consideration. The budget is eventually approved by Parliament and allocated resources then go through the whole system from the top down until

an institution is informed about its annual budget. This system leads to limited decision making at lower levels and encourages submission of an exaggerated budget proposal, since institutions are aware that their estimates will be rationalized at every higher level and funds received will be dispersed on the way from top to bottom as competing local needs are addressed. From 2000, to increase flexibility, budget categories were reduced to four: salaries and wages, additional expenses, capital costs, and reserve expenditures.

Financing of Education. The financing base of education has widened to some extent with the authorization and development of extrabudgetary sources of income from private and foreign investments. An important step at the primary and secondary levels was the authorization for schools to open bank accounts and raise extrabudgetary revenues. Although some noticeable results of this measure have occurred in urban and rather affluent areas, many schools find it difficult to raise money from communities and local industries. In practice, school directors have also been reluctant to take initiatives in this respect and to take responsibility for planning, allocating, and managing extrabudgetary resources. Incomes of higher education institutions have considerably increased through fee-based education services, consultancies, publishing, and scientific and other activities in compliance with their missions. At present, HEIs have significant and diversified experience in seeking and attracting additional sources of finance under the developing market economy. In 1997, extrabudgetary funds amounted to over SUM1.4 billion; they reached SUM2.5 billion in 1998, SUM4.8 billion in 1999, and SUM6.5 billion in 2000. In order to improve the financial base of the overall education reform program, it appears necessary to establish an environment that is more conducive to involvement of the private sector in education. To this end, the legal and fiscal frameworks should be further adjusted to attract extrabudgetary funding to education institutions. At the same time, the financial and management autonomy of institutions (relative to public education authorities) should be developed so as to strengthen opportunities for partnerships and collaboration among education institutions, the private sector, and communities. Student loans and savings for education should be encouraged.

Management of Education Institutions. The state regulates structural changes and the development of both state and nonstate education institutions. Education institutions are attested and accredited in accordance with procedures approved by the Cabinet of Ministers. (A general secondary education level school is a legal entity established according to procedures and registered with local government bodies.) The responsibilities of management bodies are defined in accordance with the Law on Education. A new system of public management of education institutions has been introduced through the establishment of trustee and supervisory boards consisting of representatives of founders, local authorities, businesses, public organizations, and sponsors. In practice, very little autonomy is left to school authorities, in part because of their reluctance to take the initiative and because of their lack of management experience.

Organization and Management of Higher and Specialized Secondary Education. MHSSE has several levers of control (e.g., methodology, licensing, retraining of personnel) over all institutions of higher education, but accountability is dual and even triple. As a result, approximately 20 HEIs are accountable directly to MHSSE.[8] Eight are considered to be administratively accountable to the Ministry of Health (17, according to ministry statistics); eight to MPE (five, according to Ministry statistics); seven to the Ministry of Culture; five to the Ministry of Agriculture and Water Resources; and an undetermined number to the Ministry of Finance. In short, colleges and universities are accountable to more than 20 different ministries and state committees. Such an arrangement encourages duplication of functions and efforts. Furthermore, MHSSE has limited capacity to manage the system strategically. Academic lyceums are accountable not only to the Center of Secondary Specialized and Vocational Education and its *oblast* departments, but also to specific HEIs. This structure obviously requires some clarification and adjustment.

Education, Training, and Employment Linkages. The education and training system continues to be insufficiently responsive to the demands of the labor market. The demand for qualified specialists is high and it is estimated that more than 26,000 vacant qualified jobs cannot be filled. Data from 2000 show that 73% of tracked graduates from vocational education institutions in 1999 were employed and only 60% of those employed made use of their specialization. The system of retraining redundant workers is underdeveloped. Linkages between education institutions and enterprises are weak. A range of measures need to be implemented to strengthen education, training, and employment linkages. It is important to acquire accurate regional data on labor market demand for employees over the next 5–10 years and to develop a system for monitoring progress in the implementation of regional programs for employment generation. New regulations are also required to facilitate an independent organization of the academic process (including the definition of admission rules), to promote the development of the physical and technical base of institutions and the provision of teachers and experts, and to encourage partnerships with enterprises and public sector institutions.

5. Conclusions and Future Directions

Achievements. The laws on Education and on the NPPT have ensured the necessary legal basis for the reform and development of the education system as an integrated academic and production process delivered in state-owned and nongovernment education institutions. The new system guarantees (i) continuity of the education process for all citizens from preschool to university and professional retraining, (ii) state education standards and state requirements for all

[8] This figure ranges from 16 to 30, according to the source.

types of education and the development of structures and mechanisms for independent control of the quality of education. At the same time, conditions for creating a competitive market for education services are being put in place. The education sector is now actively attracting various sources of funding—both government and nongovernment funds, including foreign investment.

NPPT Achievements. In a relatively short time, a new model for the education system has been created under the difficult conditions of a newly independent state undergoing transition from a command to a market economy. With the impetus provided by NPPT that established a new 12-year compulsory education system, the share of capital investment in total government expenditure on education has increased from 6% in 1995 to 32% in 2001. The major achievements of the first stage of implementing the NPPT have been fulfilled, including (i) the creation of the necessary legal and regulatory basis for operation of the continuous education system; (ii) a complete restructuring of the education system; (iii) a radical reform of the contents of education; and (iv) a stronger financial base, including funding from government sources for developing the new system.

Challenges. The progress of economic and social reforms remains slow in several respects, e.g., GDP growth; effective use of public resources; development of a modern physical, technical, and information base; processes of democratization and liberalization; and legislative and regulatory discipline. Talented people are moving away from the education sector to the private sector. Largely because of low incomes in rural areas, child labor—used as a matter of economic necessity for family subsistence—is a serious problem. In addition, MPE and MHSSE lack real power in implementing government policy in the education sector because of their significant dependence on higher management bodies and their limited influence on policy at the regional level. There is a lack of effective relationships between them and relevant central government bodies, and there are complicated and ineffective internal hierarchical arrangements within each of them. Because of excessive centralization of management, lower-level structures are not given enough powers. Most staff within the management *apparat* have dual subordination and accountability. There is a lack of political pluralism and an ineffective system of feedback and control over executive activity. Most urgent is the need to reorganize MPE and MHSSE to remove duplication of functions and to ensure continuity in education and implementation of a common government policy. In education institutions themselves, there is still a large measure of conservatism characterized by old-fashioned attitudes and behavior, close protection of status, lack of flexibility in approach, ineffective response to sociopolitical and economic changes, and inadequate support of initiative and innovations. Transfer of responsibility has not been accompanied by transfer of powers. Local government bodies are unable to hold and maintain functional control over the education system. The process of transfer of financial and management powers by the state is not dynamic or effective, but rather

characterized by top-down allocation of powers. This includes a lack of quality control by state bodies over private sector education institutions. There continues to be excessive regulation of self-financing and lack of appropriate infrastructure, equipment, and human resources—including well-qualified teachers.

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