

Approved by
Order of the President
of the Republic of Kazakhstan
as of “___” _____2004
No ____

**National Program on Development of Education
in the Republic of Kazakhstan till 2010**

Astana, 2004
Program Descriptor

Title	National Program on Development of Education in the Republic of Kazakhstan till 2010
Ground for development	Message of the President of the Republic of Kazakhstan to the People of Kazakhstan “Towards Competitive Kazakhstan, Competitive Economy, and Competitive Nation” as of March 19, 2004, Strategic Plan of Development of the Republic of Kazakhstan till 2010 approved by Order of the President of the Republic of Kazakhstan No 735 dated December 4, 2001
Key developer	Ministry of Education and Science of the Republic of Kazakhstan
Goal	Modernization of the national model of multilevel continuous education based on priorities of Strategic Plan of Development of the Republic of Kazakhstan till 2010 for integration in the global educational space and satisfaction of the needs of individuals and knowledge-based society
Tasks	Improvement of regulatory framework for operation of national model of education based on further democratization of education administration; development of education, taking into consideration historical, national, demographic, geographical, economic and cultural features of Kazakhstan; update of content and structure of education on the basis of local traditions and international experience; integration in the global educational space; establishment of national system for education quality assessment; creation of single educational information environment in the Republic of Kazakhstan; improvement of training-methodological and scientific support to educational process; strengthening of material-technical base of educational system; integration of education, science and industry; creation of mechanisms for involvement of real economy sector for improved quality of vocational education and training; improvement of financial and staff support of educational system, improvement of the social status of teachers;

ensuring balance of state, public and personal interests in the system of multilevel continuous education.

Required resources and sources of funding	Amount of additional state budget spending required for implementation of the Program will make 152,977 million Tenge
Expected results	<p>Effective and optimal system of education administration; implementation of the principle “education for everyone during whole lifetime”; high quality and competitive, performance-oriented education; accessibility and continuity of all levels of education; advance development of education as relative to other social areas and economic sectors; positive public opinion about high priority of education sphere as an essential condition of social-economic progress in all fields of public development; effective system of scientific and training-methodological support to all levels of education; formation of professional competent personality, competitive specialist able to solve professional tasks independently and creatively, realize personal and public importance of professional activities, and take responsibility for its results; creation of single educational information environment of educational system; establishment of system of statistic indicators of education, and adequate international statistical standards; establishment and maintenance of system for monitoring and forecasting of educational system development; increase of government support and improvement of labor incentive mechanisms for teachers; social partnership in vocational training of staff; facilitation of scientific and innovation activities in the field of education.</p>
Implementation period	2005 – 2010

Introduction

National Program on Development of Education in the Republic of Kazakhstan till 2010 (hereinafter – the Program) defines strategy, key directions, priorities, and tasks of government policy in the field of education and mechanism of their implementation as a fundamental component of formation and strengthening of national independence and progressive development of the country.

Defining education as a national priority, the Program lays the foundation for development of long-term government educational policy, and constitutes a basis for introduction of amendments and changes to the legislation, financing system, content of education, structure of educational system, system of educational administration, staff and social policy.

Development of this program is caused by the need in cardinal changes aimed at improvement of quality of education, and solution of strategic tasks of Kazakhstani system of education under new economic and social-cultural conditions.

1. Review of the Educational System Status

The Republic of Kazakhstan was recognized by the international community as a market economy state. During the short term of independence the country achieved significant economic growth, integrating in the global community.

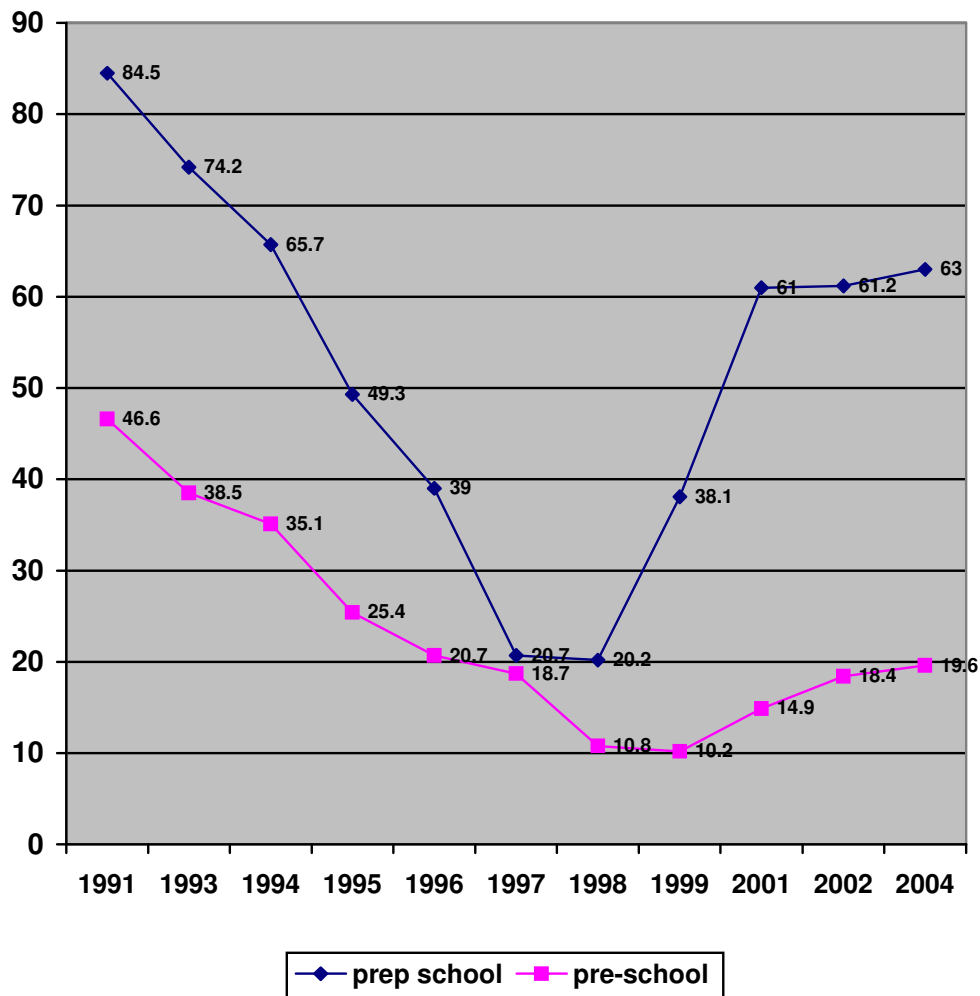
In this context, role and importance of contemporary educational system and human resources as indicators of the level of social development increases, being the critical factors and basis of economic power and national security of the country. In their turn, changes in the system of social relations have an impact on education, which requires its mobility, adequate response to the realias of the new historical stage and compliance with the need of economic development.

At the same time Kazakhstani system of education keeps on developing under conditions of put-of-date methodological base, structure and content that do not allow it to take a worthy place in the global educational space.

Status of pre-school education shows low kindergarten coverage of children at the age of 1 to 6 years (19.6 %). Only 63% of five to six-year old children undergo compulsory preparatory school program (Diagram 1).

Diagram 1

Coverage of preparatory school training and pre-school education (%)



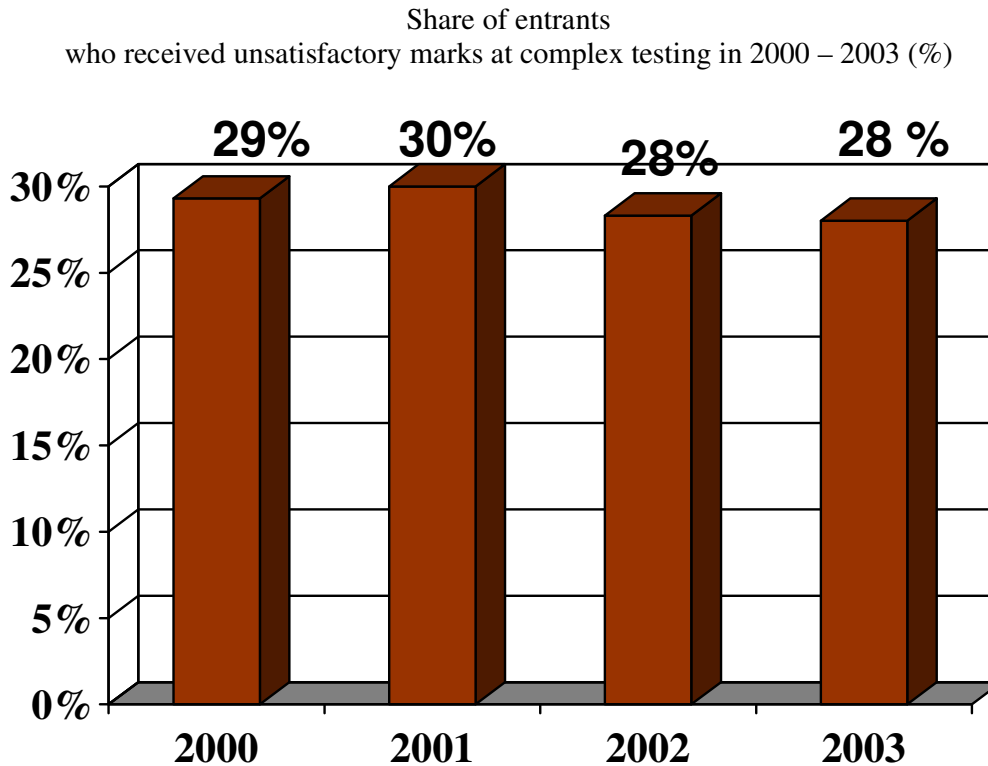
Operating kindergartens have outdated and worn-out furniture, sports equipment, library fund, toys, books, which visual aids, decreased quality of services.

In 8,260 operating general schools with over three billion schoolchildren content of education remains factual, and is not oriented at preparing graduates for competent, responsible, and creative participation in the life of society. State education standards with subject-based approach are outdated. School training does not provide pupils with distinct motivation in choice of life path, interests and perspectives. Only 30% of senior pupils consciously choose occupation, corresponding with their abilities. Because of lack of competent approach, based on individuality of pupils, in education, 70% of prospective graduates have low self-esteem and aren't prepared for independence in life. Besides, due to insufficient specialization at senior school level graduates cannot find job.

Results of complex testing show low level of entrants' knowledge. Share of entrants who received unsatisfactory marks in 2001 is 30%, in 2002 and 2003 it was

28% (Diagram 2). A special concern is caused by the quality of knowledge on natural and mathematical subjects.

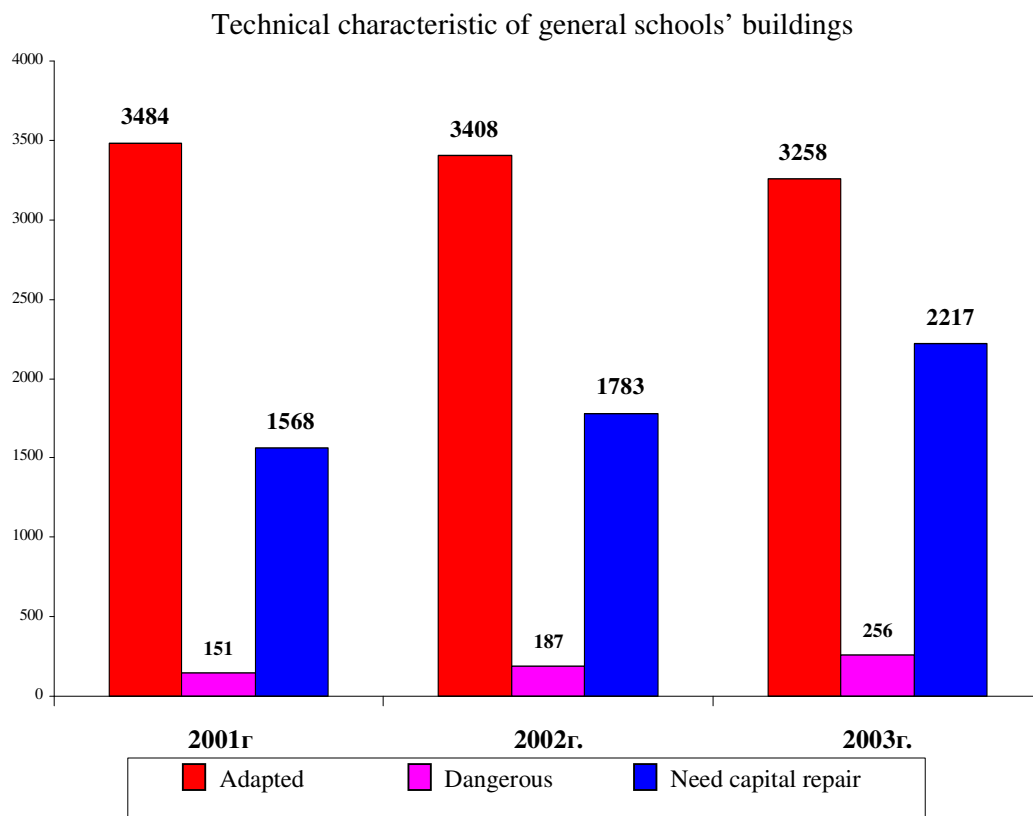
Diagram 2



Results of Single National Testing in 2004, involving 76.1% graduates of the current year, show that 24.2% did not reach threshold level of 40 scores out of highest 120, and only 0.7% proved excellent marks, gaining 101-120 scores.

At the same time use of outdated and lack of modern instructional furniture and equipment, sports facilities (especially in rural schools) prevent from complete compliance with State Compulsory Standard of Education and affect children's health. Almost every third school on the country does not have subject-specialized rooms for chemistry, physics, biology, mathematics, etc, specialized laboratories and gyms.

Students of 256 schools study in dangerous structures, 41% schools are located in adapted facilities, 2,217 schools need capital repair. Only 59% schools have standard buildings (Diagram 3).



At present 3,687 out of 8,260 schools in the country (44.6%) are schools with Kazakh language of instruction. The number of pupils in Kazakh language schools increases every year. While in 1994 42.7% of total number of schoolchildren studied in Kazakh, today this number makes 54.8%. During the last years their number increased by 155,000 persons.

There are 4,272 (52%) ungraded general schools (UGS). 429,100 children study there, and 64,100 teachers work there. Due to big distance between schools and homes, transport is organized for 37,000 children.

Growth dynamics of UGS network during last 3 years shows ongoing increase of the number of UGS pupils.

Demand of UGS in teaching staff is 1,400 persons.

Rights of disabled children for full value education and creative development are fully exercised. Only one third of over 120,000 disabled children is covered by special education in special correctional organizations.

Regulatory and methodological basis of special education, system of training and retraining of teaching staff special organizations, require improvement and modernization.

614 boarding institutions operate in the country to provide government support to children in need. There study about 75,000 orphans and children deprived from parental care, children with deviant behavior, children from poor and large families.

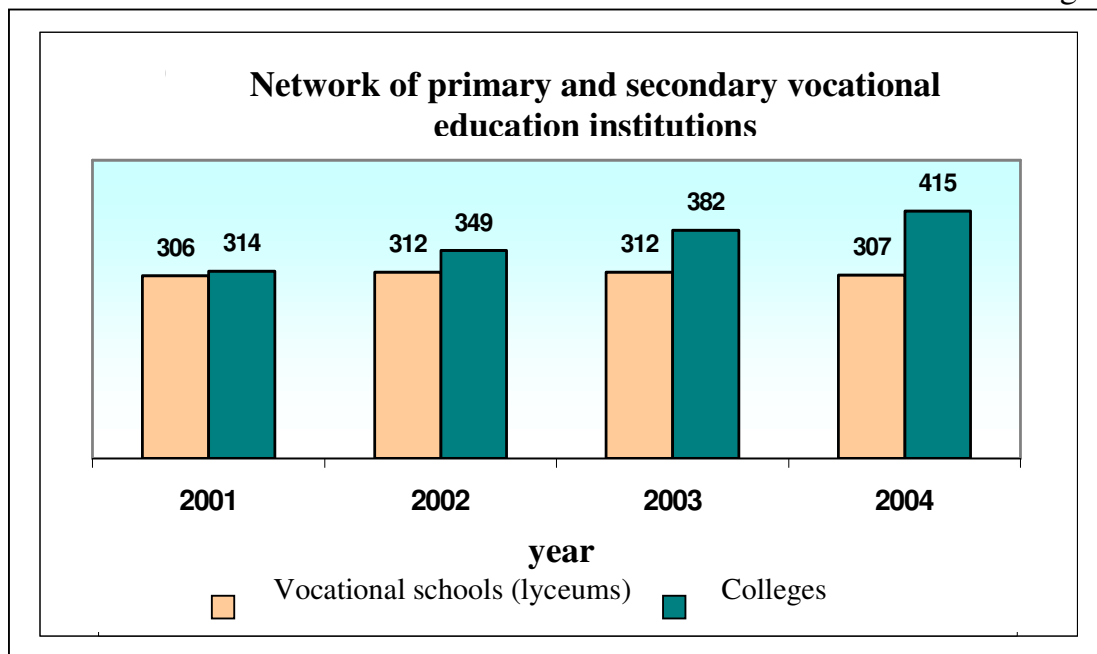
In accordance with the Law of the Republic of Kazakhstan “On Children Villages of Family Types and Youth Houses” there were opened 5 children villages of family type and 17 youth houses, where conditions of life are like in a family.

Foster care education is developing.

In the system of supplementary education, which is an integral part of single educational process, the number of out-of-school organizations has significantly reduced: from 1,727 in 1991 to 629 in 2003.

System of vocational education of the Republic of Kazakhstan is represented by 722 educational institutions, including 307 vocational schools (lyceums) and 415 colleges with total number of students 341,323. Network of the educational institutions increased due to development of private sector vocational education, including 230 private colleges and 34 vocational schools (lyceums) (Diagram 4).

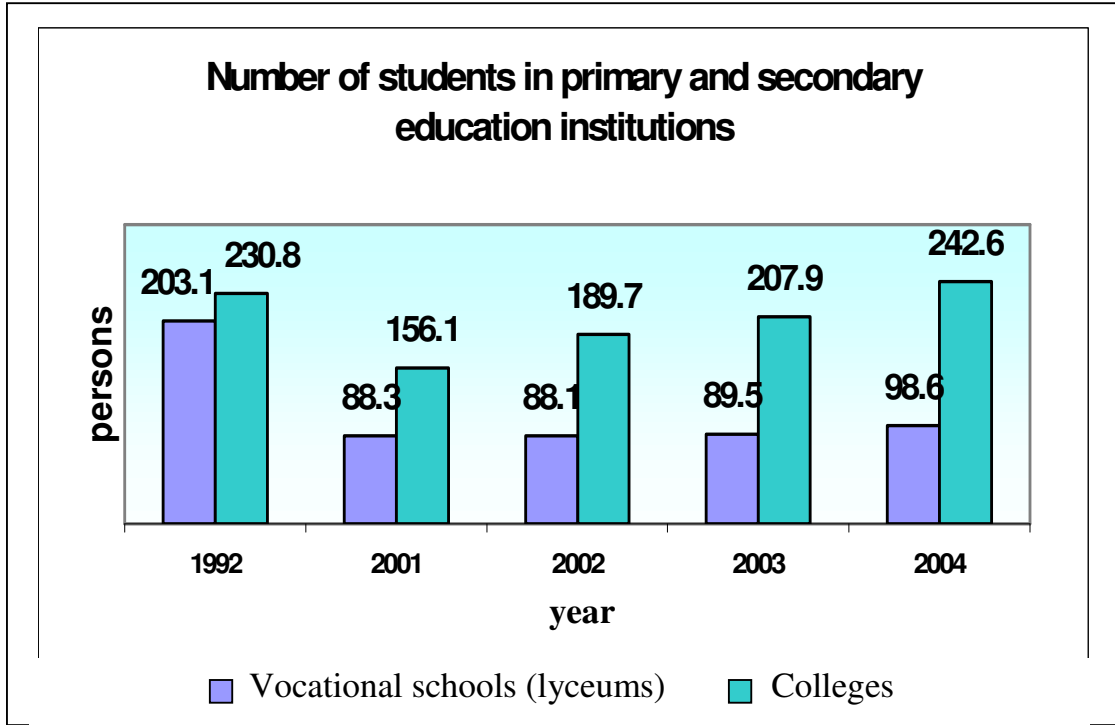
Diagram 4



There is a trend of disproportion between different education levels in training of specialists for economic sectors. Number of technical and service specialists is much lower than in higher education, and in term of calculating per 10,000 people students of colleges number to 162, students of vocational schools number to 66, while students of higher education institutions number to 403.

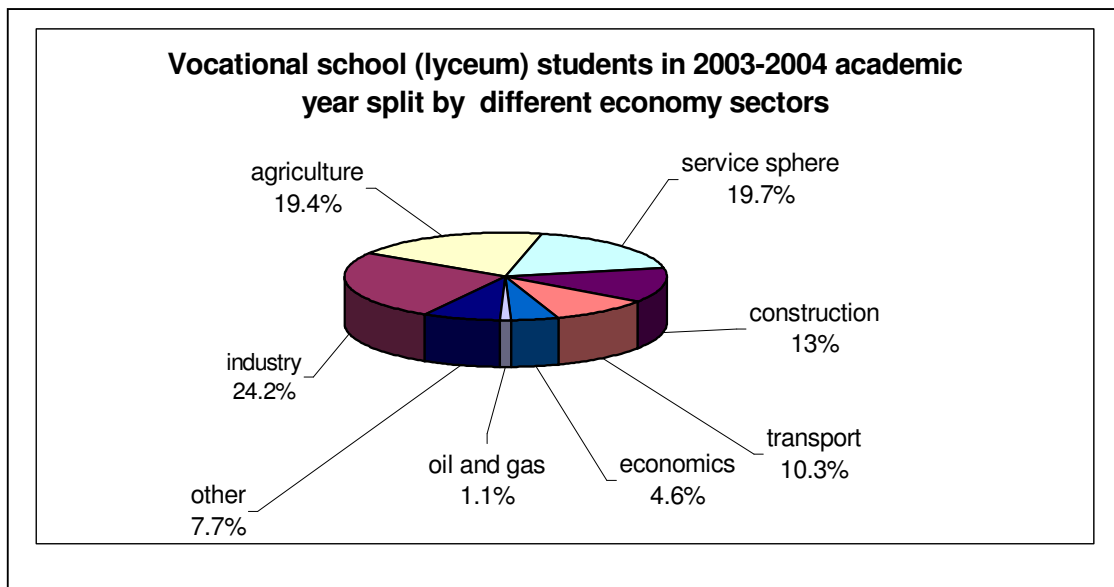
Number of students in primary vocational education institutions has reduced by 114,400 during 1992 to 2003 (Diagram 5).

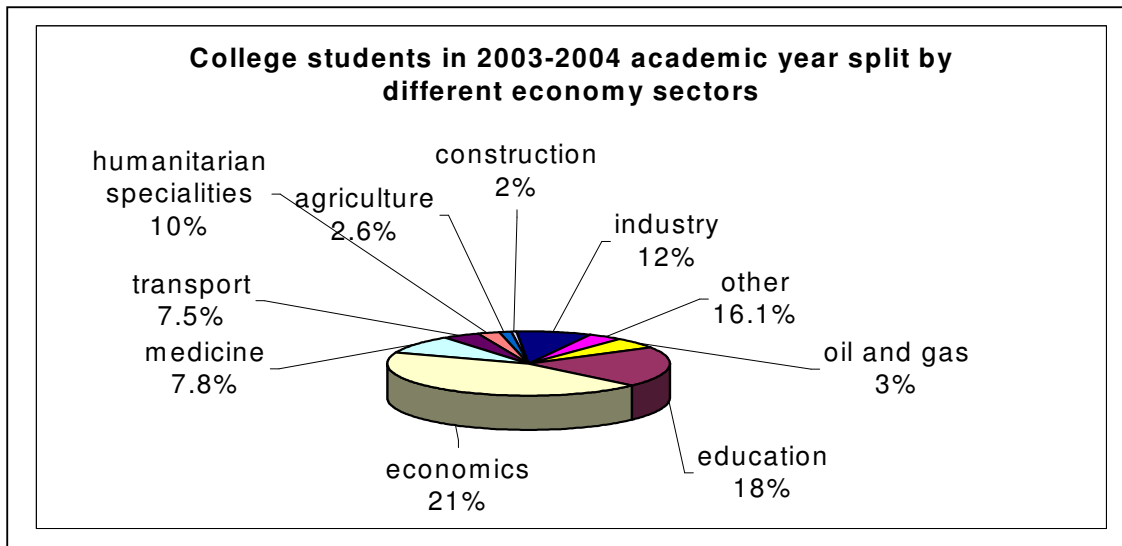
Diagram 5



Training of technical and service specialists has undergone redistribution in economy sectors: there is increase in training of specialists for service sector and non-production sector, while demand in technical, construction, and agricultural specialties remains unsatisfied (Diagram 6).

Diagram 6





Employers and other social partners are insufficiently involved in the process of organization of vocational education and training of specialists. There is no mechanism for attraction of private sector funds in organization of vocational education and training of staff.

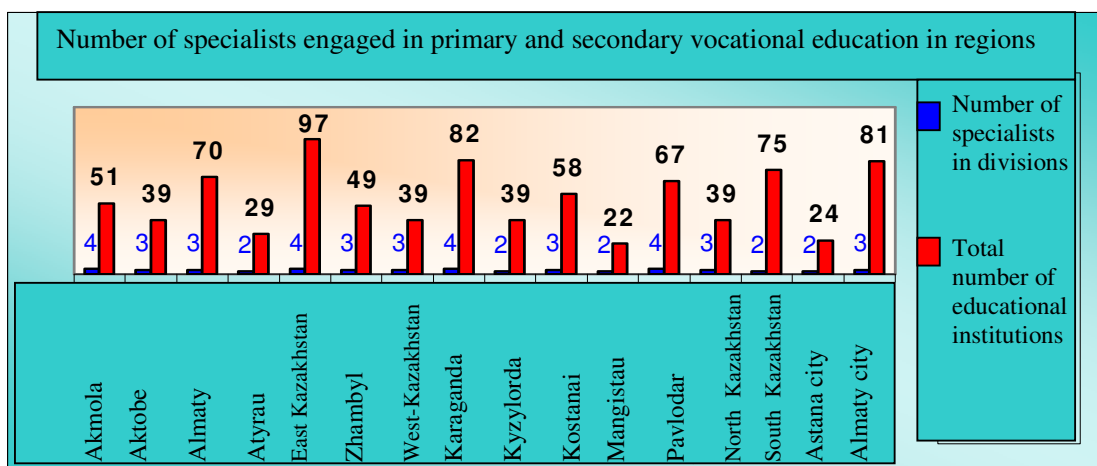
Quality of vocational education depends on amount of financing for primary and secondary vocational education institutions.

Allocated funds are primarily spent on salaries and payroll tax - 54%, meals, uniforms and scholarships – 23%, utilities – 10%, maintenance – 3%, assets procurement – 0.1% and other expenditures – about 10%.

Funds aren't allocated for modernization of instructional material base, organization of industrial training (procurement of instructional materials and instruments), retraining and further training of engineering and teaching staff.

Management structure and methodological base of vocational education institutions and staff training at oblast level had not been supported since administration and funding functions were handed over to local representative and executive authorities in 1996 (Diagram 7).

Diagram 7



Technical and vocational education programs do not meet principles set by Recommendations on technical and vocational education (UNESCO, 2001), criteria of International Standard Classification of Education programs (ISCED, 2003).

Market of higher education services is characterized by growing number of higher educational institutions of various forms of ownership and departmental affiliation, increase in number of students and government educational procurement (Table 1).

Table 1

School year	Number of higher educational institutions	Number of students	Government procurement (apart from those who continue studying)
2000/2001	170	440715	21970
2001/2002	171	514738	25265
2002/2003	161	590982	25465
2003/2004	174	656561	26465

A new generation of state standards for specialties, unifying curricula of junior courses has been established. A new model of student enrollments has been introduced, allowing admitting the most talented youth. Higher educational institutions have been given some academic freedom to take into account labor market demand; scientific research activities have become more active and are applied in training; contacts are being established with leading foreign universities.

About 5,500 citizens of the Republic of Kazakhstan are studying in more than 35 countries.

Presidential program “Bolashak” has been implemented. Over 400 scholarship holders have successfully completed education abroad under this program.

At the same time most problems of integration remain unresolved, because the basis of Kazakhsatni educational system is formed of such methodology, structure and content, which hamper its integration in global educational space.

Knowledge level of students has sharply decreased. Thus, the average score at complex testing of senior students of colleges and higher educational institutions haven't been more than 3.1 for the last 3 years.

Decreased requirements of some universities and their numerous branches to entrants and lack of appropriate intellectual, staff, and material-technical capacity caused excessive growth of the number of specialists, and saturation of labor market with staff in no demand.

Such situation was also caused by mass training in highly specialized professions (over 400 items) oriented only at stable sectors and consumers.

Social partnership and targeted staff training did not expand, particularly at regional level.

No mechanisms are developed for mutual acceptance and recognition of Kazakhstani and foreign curricula, and certificates, which restrains academic mobility of students and teachers.

Post-graduate education has also witnessed incompliance with needs of market economy and international norms. Forms and content of post-graduate and doctoral training aren't effective (less than 18% of post-graduate finish studies with degree).

Lack of real educational training in post-graduate and doctoral studies made it impossible to introduce quality management mechanisms in this sphere. There is no system of responsibility of scientific supervisors (advisors), educational and research organization for results of training.

Number of defended theses on agricultural, veterinary and applied sciences is decreasing. There is a noticeable decline in defending of doctor theses on chemical sciences, and candidate theses on biology sciences. There are very few specialists on probability theory and mathematical statistics, which are very important for mathematical economics and business.

Despite the fact that biotechnology is one of promising scientific fields in Kazakhstan, only one doctor and several candidates in the country carry out research in this area. There is also a severe shortage of staff in a number of medical specialties: transplantology and bioartificial organs, neurosurgery, haematology, therapeutic physical training, sports medicine, etc.

Although universities train a lot of financial specialists, their number in scientific specialty "Finances, Money Circulation, and Credit" is extremely low.

Deficit in training of scientific staff for a number of scientific specialties is connected with lack of relevant scientific schools in the country. Scientific research institutes and universities experience "aging" of the staff: during the last 10 years average age of Doctors of Science has been 56 to 62 years old, Candidates of Science - 44 to 47 years.

Adoption of the laws "On Education", "On Science", "On Innovation Activities", national program "Education", and other regulations formed a legal base and real prerequisites for training of scientific and scientific teaching staff of higher qualification. A number of measures were taken to improve system of scientific staff certification. A new List of specialties for conferring academic degrees to scientific and scientific-teaching staff has been approved, reducing number of specialties from 583 to 411.

Despite positive results, training and certification of scientific staff does not fully correspond with the speed of changes in social-economic conditions and does not facilitate development of scientific research in the most breakthrough areas, defined by the Strategy "Kazakhstan - 2030".

Applied research of Kazakhstani scientists is insufficiently oriented at scientific support to basic industry sectors: biotechnology, information and space

technologies, advanced processing of hydrocarbon material, petrochemistry, nuclear energy, electronics, communications, and new materials creation.

The country has over 250 research organizations of various departmental affiliation and forms of ownership, including 5 national scientific centers, and scientific capacity in 55 state universities and 112 private universities, but the condition of this sector does not correspond with contemporary tasks. Out of 3,000 doctors and 20,000 candidates of science, only 950 (32%) of doctors and 2,800 (14%) of candidates of science carry out scientific research.

One of indicators, characterizing government's attitudes to scientific and technological progress, is amount of financing for the science. Despite of significant increase of absolute value of budget funding for science in 2004, in terms of GDP share it makes only 0.2%, which is substantially lower than in developed countries (2 – 2.5%), and in Russia – 1.0%. Reduction of budget funding in virtual absence of other sources led to decrease in the number of scientific organizations, reduction of scientific research in universities and outflow of specialists with higher scientific qualification to other sectors and abroad.

Participation of scientific organizations in educational process of universities is limited, which consequently affects both science and education of the country. Due to halfness and absence of pattern in actions, real integration of university and academic science did not happen. Gap between the content of education and contemporary science prevents from full value transition from training of “specialist” to training of “research specialists” able to perceive new scientific ideas creatively, promote latest technologies and manage modern technological processes.

Educational theory and practice of educational system of the country are in crisis, and teaching methods at all levels of education haven't change for several decades. Traditionally curriculum structures for training of teaching staff have been subject specialized.

Concept of teacher's function as a source of ready knowledge is out-of-date at the present stage of social development.

At the same local educational science does not sufficiently study the new vision on a teacher as a coordinator of educational process, a methodologist, and training technologist, although during the last years 140 doctor and 600 candidate theses have been defended in this area. Practical value of numerous educational studies is very low. Issues studied by teacher-scientists are distracted, solutions they suggest are often of little use for application in educational process, they do not enrich educational practice with effective educational technologies.

Most graduating teachers are not willing to work in schools, especially in rural and ungraded schools. At present every fourth student studies teaching specialty (167,733 persons), but there is a big shortage of qualified teachers, including in rural area – over 2,000, in cities – over 1,500.

Market economy requires a teacher of new type, having all-round education, broad outlook, professionally prepared for work in chosen specialty, and being a

good manager. He should be multilingual, know leading informational education technologies and understand students' psychology well.

The country does not have a unified system of further training and retraining of staff. There are relevant entities within some agencies and ministries (Ministry of Health, Ministry of Education and Science), supported primarily by state budget. In sectoral agencies and companies this work is done occasionally, and every organization solves this issue independently, while further training and retraining are the most effective and low-costly form of providing staff innovation enterprises, and SMEs.

University teachers do not have opportunity to visit further training courses in established timeframes (once in 5 years).

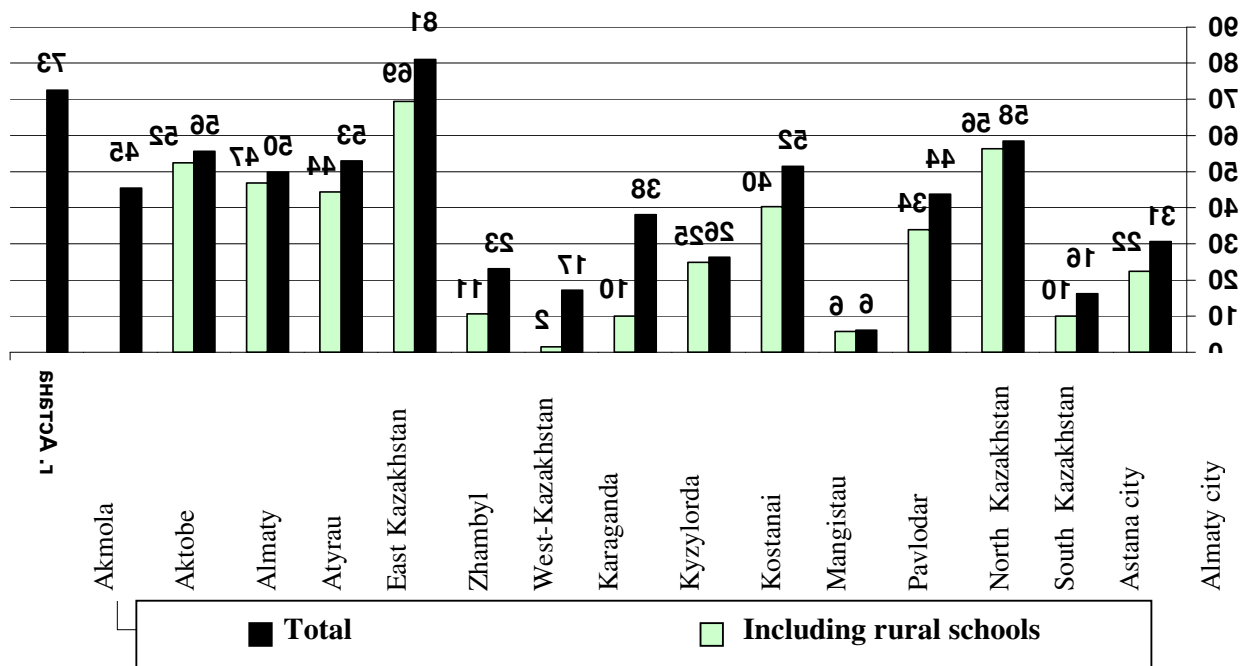
Development and application of Information and Communication Technologies (hereinafter – ICT) in education is significantly lagging behind real needs.

After completion of the first stage of schools computerization, computers availability is on average 54 students per one computer, while in developed countries this figure is 4-5 students per one computer. This indicator for vocational schools (lyceums) and colleges today makes 31 and 25 students per one computer, respectively.

Only 38% schools, 39 % of primary vocational education organizations, 51 % of secondary vocational education organizations have access to Internet (Diagram 8).

Diagram 8

Number of schools, having Internet access, by oblasts



Information system of Ministry of Education and Science requires further development, despite of creation of Central Communication Server, connected with server of central office of Ministry of Education and Science and communication servers of education departments in oblasts. At the level of higher education there are individual local management systems of educational process, which do not have an aligned interface with the information system.

Electronic teaching tools for secondary general education organizations cover only 25 % schools subjects.

Only 717 schools in six oblasts are connected to satellite channel of distant education (8.7 %). Only few universities introduced technology of distant education, in some universities this technology is being implemented on pilot basis. There is no system of open education, which is based on distant technologies of education.

Current mechanism for control and assessment of education quality at all levels does not fully reflect real condition of education, and consequently cannot be an objective tool for administration.

Indicators and criteria for assessment of quality of educational organizations' activities are imperfect; there is not objective quality monitoring. Components of education quality management act separately and ineffectively; there is no streamlined system of internal control of education quality. Content, goals and tasks of external assessment of students' performance do not correspond with modern requirements to quality of knowledge. Kazakhstani educational organizations don't participate in international programs on comparative research of knowledge level of students.

Key reasons of the current situation in educational system:

prevalence of subjectivity in ultimate assessment of education quality, lack of required motivation for introduction of objective system of education quality assessment;

insufficient understanding by local government of their roles and responsibility in the system of preschool education and in other levels of education;

insufficient sensitivity of educational system to innovations and dedication to outdated principles of education's content and structure;

lack of motivations for high quality of teachers training, outflow of staff, and insufficient material incentives for teacher labor;

insufficient effectiveness of mechanisms for formation of growing generation' ethnocultural and civil identity based on knowledge of the country's history, official language and national and cultural values of Kazakhstan peoples;

lack of funding for improvement of material-technical base of pre-school institutions, schools, out-of-school organizations, organizations of primary and secondary vocational education, retraining and further training of teaching and scientific-teaching staff;

incompliance of material-technical base, instructional-laboratory, physical training and game equipment, text-books and methodological literature with modern requirements;

no of scientifically justified long-term forecast of supply and demand at the market of educational services;

inconsistency of methodological approaches during creation and implementation of successive state educational standards and programs for all levels and stages of multilevel and continuous education, and mechanism of their monitoring;

no mechanisms for involvement of employers and other social partners in the process of education and training of specialists;

shortcomings in the structure of management and educational methodological support of organizations of primary and secondary vocational education;

underdeveloped instruments, methodologies and technologies of assessments activities in educational sphere;

no scientific research on assessment tools, including ones in the field of comparative educational science;

underdeveloped system of retraining and further training of teaching and scientific-teaching staff and instructors of industrial training;

no single information infrastructure of educational system comprising education administration system.

Current statistics system of Ministry of Education and Science does not correspond with modern requirements both with respect to content and technological aspects; data are poor and inefficient, and flows of unified statistical information of required completeness, meeting international standards, aren't worked out. System of educational indicators is replaced by a set of data collected on different basis, which after generalization are interpreted in terms of administrative reports.

There are also problems in collection, processing and output data in educational and science statistics.

There are no relevant programs of statistical reporting through levels of education. Impact of information technologies in educational statistics on mechanisms of management decision making has been insufficient, because information technologies has become providers of data rather than analytical information.

Improvement of economic situation in the country at the beginning of new century has generally had positive effect on the system of education: construction of new schools re-started, network of schools with Kazakh and natives languages of instruction is expanding, number of innovational education organizations is increasing; kindergartens are re-established; funds are allocated for strengthening of material-technical bases of schools and universities, industry of school education is revived; new educational programs, printed and electronic text-books, and training methodological manuals are used. Availability of computer equipment in the country is one of the best in CIS, according to UNESCO. Pilot programs of distant education are made. System of independent external assessment of learning achievement is being introduced: single national testing (SNT), and interim certification of students after 2 (3) course (ICS). However these measures aren't sufficient for radical

changes in educational system's condition and elimination of the system's lagging behind the needs of market economy and open civil society and criteria of equal integration in global space.

Current situation in the field of education requires measures for overcoming negative phenomena, implementing cardinal organizational and structural reforms, modernization of content of education and improvement of quality of education, training of specialists in accordance with social-economic and political conditions of the country's development and progressive experience of highly developed countries.

2. Goal and Tasks of the Program

Goal: Modernization of the national model of multilevel continuous education based on priorities of Strategic Plan of Development of the Republic of Kazakhstan till 2010 for integration in the global educational space and satisfaction of the needs of individuals and knowledge-based society.

Tasks:

Improvement of regulatory framework for operation of national model of education based on further democratization of education administration;

Development of education, taking into consideration historical, national, demographic, geographical, economic and cultural features of Kazakhstan;

Update of content and structure of education on the basis of local traditions and international experience;

Integration in the global educational space;

Establishment of national system for education quality assessment;

Creation of single educational information environment in the Republic of Kazakhstan;

Improvement of training-methodological and scientific support to educational process;

Strengthening of material-technical base of educational system;

Integration of education, science and industry;

Creation of mechanisms for involvement of real economy sector for improved quality of vocational education and training;

Improvement of financial and staff support of educational system, improvement of the social status of teachers;

Ensuring balance of state, public and personal interests in the system of multilevel continuous education;

3. Levels of Education and Educational Programs

Basing on the principle of educational levels' continuity and international requirements the following levels of education exist: preschool education, secondary education, post-secondary vocational education, higher education and post-graduate education.

At each level of education, general (basic and supplementary) and vocational (basic and supplementary) programs are fulfilled.

3.1. Preschool Education

Preschool education is the first level of continuous education, creating developing environment for full value formation of child's personality, taking into account age and individual peculiarities.

Children's right for pre-school education is exercised through network of pre-school organizations, orphanages, pre-school groups in kindergartens and boarding schools for orphans and children without parental care, pre-school groups in out-of-schools organizations and complexes "school-kindergarten".

Organized education of children with special needs is carried out in special pre-school organizations and groups and complexes "school-kindergarten".

Goal: providing children with equal starting opportunities in receiving education through educational, health improving and correctional programs, formation of full value pre-school education and reestablishment of kindergartens network, especially in rural area.

Tasks:

Early coverage of children by pre-school organizations irrespective of the social status and place of residence;

Improvement of management structure and methodological support of pre-school organizations;

Creation of conditions for child's all-round development, acquiring of personal culture fundamentals, corresponding with national spiritual values;

Ensuring full coverage of five-year old children with preparatory school training;

Ensuring consistency of educational programs of pre-school and primary education, defining optimal training load of child to protect him from overwork, strengthen his health, and introduce to values of healthy life style;

Formation of child's personal qualities, required for mastering learning activities;

Development of system of inclusive education of disabled children;

Ensuring interaction between kindergartens and families to carry out full value development and education of children, protect their rights, and improve legal and psychological-educational culture if parents;

Establishment of the system for development, testing, and psychological-educational examination of pre-school training-methodological manuals, toys, and games equipment.

To have a more complete coverage of children with pre-school education there operate pre-school organizations of various forms of ownership: government-owned and private. With view to support working mothers, large industrial enterprises, farms and national companies shall open kindergartens.

Content of pre-school education will be focused on creation of general favorable background for intellectual and emotional development of children, protecting and strengthening of their physical and psychological health.

3.2. Secondary Education

Secondary education is compulsory and serves as a basic element in integrated continuous system of education.

Citizens' right for secondary education is exercised through network of general schools, lyceums, gymnasias, and vocational education institutions. According to special conditions of learning schools are divided into: boarding schools, schools for talented children, schools for disabled children, etc.

Out-of-schools organizations form a part of system of secondary education, providing supplementary education of children.

Goal: formation of a person, who on the basis of acquired knowledge, skills and social competencies, is able to easily orient himself, realize and develop himself, independently motivate and organize own life activity, choice of occupation, and continuation of education, and make accurate, morally responsible decisions in the rapidly changing world; ensuring equal opportunities for children in receiving secondary education.

Tasks:

Bringing up public spirit, Kazakhstani patriotism, tolerance, high culture, respect to rights and freedoms of a person, to official language and national symbols, to traditions, culture and languages of peoples of Kazakhstan;

Development of intellectual, spiritual, and physical potential of students;

Bringing up high value attitude to native land, and nature;

Development of functional literacy, motivation for receiving high quality education and independent creative labor;

Creation of conditions for mastering educational programs, acquiring technical vocational skills, ability to communicate and learn in the official, native, and foreign languages in order to secure vocational competence and competitiveness of schools graduates at the labor market;

Elimination of subjective factors' influence on ultimate evaluation of learning achievements of students;

Introduction and development of health saving and information technologies, improvement of training-methodological library funds;

Enhancing teacher's motivation for creation, ongoing improvement of qualification and teaching skills;

Variability of content of education, taking into account interests and abilities of students;

Development of network of out-of-school educational organizations;

Creation of supplementary conditions for fulfillment of creative abilities of children and solution of the problems related to their occupation during free time; reduction of the number of children with asocial behavior;

Prevention of neglect, homelessness, and offences among minor children.

Content of secondary education will be brought in compliance with dynamic demands of society for formation of basic competencies; further work will be done to enhance priority of the official language as a basis for multilingual education and ensure that it's in demand. It's expected to improve forms and methods facilitating improved quality of teaching the official, native and foreign languages.

For full value and high quality educational process in ungraded schools, combined classes of general and senior level will be gradually reduced. Network of boarding schools will be expanded. It's planned to build new boarding schools in rural area for children, studying in ungraded schools.

With view to integrate Kazakhstani system of education in global educational space, there will be made transition to 12-year secondary education providing for specialized education of children at senior level.

12-year secondary education will be exercised in three stages, completed with independent external control.

1 stage – primary general education with duration of 4 years, 1-4 grades. Education starts from 6 years. Key task of primary school is to ensure establishment of child's personality, identify and develop his individual abilities, and teach him to learn. Content of education will be complemented by early (starting from 2 grade) study of foreign language and basics of informatics.

Education at 1 stage is focused on formation of positive motivation and abilities in learning activities: strong skills of reading, writing, counting, elementary experience of language communication, creative self-realization, culture of behavior, basics of personal hygiene and healthy life-style for further mastering of educational programs of basic school.

II stage – basic general education with duration of 6 years, 5-10 grades. Priority focus of basic school's activities is students' learning of basics of sciences system, formation of high culture of interpersonal and interethnic communication, self-determination and career guidance. At every stage content of each subject shall logically complete in the volume of general basic education. Variation part of curriculum shall expand to study chosen subjects and introduce pre-specialization training.

Following completion of II stage, students' abilities and level of training will be identified for choice of further specialization and form of teaching at III stage of secondary education.

III stage – secondary general education, specialized education with duration of 2 years, 11-12 grades.

Principally new approach to building III stage of secondary education consists in the following: teaching will be carried out on the basis of differentiation, integration, and professionalism of content of education. Priority focus of senior level

activities will be introduction of specialized study of social-humanitarian, natural science, technical and other directions to fulfill advanced pre-vocational training of students, taking into account peculiarities of their individual educational tracks.

Students of III stage will be given an opportunity to choose forms and methods of instruction, individual educational programs with special emphasis on creative activity and creation of conditions for development of their individual abilities. Transition will be made to move away from focus on knowledge acquisition to acquiring systemized ideas about the world, society, human being, and striving for their independent expanding and advancing.

Mastering of secondary education programs shall result in Single National Testing.

Content of education will be improved by means of application of new performance-oriented National standard of secondary education, establishing a system of national goals of education in the form of basic competencies of graduates, and regulating “exit” through specification of expected results of training.

With view to effectively implement National standard of secondary education and achieve compliance with modern requirements, material-technical base will be strengthened, and subject rooms will be modernized and equipped.

Methods and forms of working with talented children will be improved, focusing on further development of the process of forming intellectual potential of Kazakhstan; cooperation with international and non-governmental organizations will be developed. In order to promote engineering-technical specialties it’s intended to establish part-time schools for children talented in natural and mathematical sciences in the basis of leading universities of the country.

To provide children with full value supplementary general education it’s planned to expand network of and improve activities of out-of-school organizations: Palaces, Houses, Centers, complexes, studios of children and youth creative work, stations and bases of young technicians, tourists, naturalists, children musical and sports schools, arts schools, service clubs, sports, health improving and tourist camps, etc.

3.2.1. Special Educational Organizations

System of special education provides for creation of comfortable conditions for development and education of disabled children, including children with sensory, motor, and intellectual disturbance.

Correctional education programs for disabled children are implemented in correctional (compensational) organizations of pre-school education, special correctional organizations of secondary general education, correctional organizations of primary vocational education, psychological, medical and education clinics, offices of psychological educational correction, and speech therapy points.

Goal: ensuring access of all disabled children to full value education, providing medical-teaching correctional support, and integration in the society.

Tasks:

Expansion of the network of special correctional organizations for disabled children; creation of optimal conditions for their early identification and education coverage;

Improvement of conditions for activities of special correctional organizations aimed at development of personality oriented child;

Development systems of inclusive education of disabled children; development, testing, and psychological-educational examination of training-methodological manuals, and special equipment.

Moving focus of correctional developing education to early age will allow for maximum effectiveness of the set of correctional activities, resulting in opportunities for disabled children to study with other children of the same age in ordinary general schools.

Legal state support to correctional-educational care will be aimed to improvement of activities of government agencies of education, health and social welfare and creation of mechanism for interdepartmental interaction in identification, keeping records of and correction of small children with deviations in psychophysical development.

3.2.2. Technical Vocational Education

Technical vocational education is a component of the system of secondary education and a tool of preparing a person to vocational activities and effective participation in the labor world.

Major direction in activities of organizations of technical vocational education is creation of sufficient and required conditions to ensure qualified vocational training of students at the level of requirements of latest technologies and in compliance with development of labor market.

Goal: satisfying needs of society and economy of the country in qualified staff and specialist of technical and service labor, taking into account individual characteristics of a person and individual social groups.

Tasks:

Development of multiprofile and multifunctional network of vocational educational institutions;

Ensuring accessibility and increase of people's interest in acquiring high quality technical and vocational education;

Improvement of structure and content of educational institutions and educational programs of technical and vocational education in compliance with the demands of employers and labor market;

Establishment of the system of independent evaluation of vocational proficiency of students, assessment and conferring of qualification;

Development of social partnership in organization of vocational training of staff, including partnership in strengthening of material-technical base and organization of industrial training of students and their employment;

Development of training-material base and phased informatization and software support of educational process in vocational education institutions and staff training;

Establishment of effective funding mechanisms for training of qualified technical and service staff.

By the nature and complexity of vocational educational programs of training qualified technical and service staff vocational education is divided into:

1) technical and vocational education of first level, providing for acquiring of skills for execution of works in simple mass professions of technical and service labor that does not require advanced theoretical and vocational training.

Content of educational programs of the first level provides for study of integrated courses on general, and social-economic subjects, which are essential for successful mastering of programs on general vocational and special subjects and acquiring of job skills. Upon completion of training an achieved level of professional qualification (grade, class, category) for specific profession is conferred. Duration of training on the basis of basic general education is 2 years.

2) technical and vocational education of second level, providing for acquiring of more sophisticated (related) specialties and practical skills of fulfilling service and technical works in all sectors of economy related to high technologies and professional activities.

Content of educational programs of this level provides for study of general humanitarian, economic, general professional and specialized subjects, and execution of practical tasks for acquiring and strengthening of job skills. Upon completion of training an advanced level of professional qualification for specific profession is conferred (technician-mechanic, technician-electrician, technician-technologist, technician-constructor, etc.). Duration of training on the basis of basic general education is 3 years.

Educational programs on cultural and arts specialties are implemented with consideration of the principle of early professionalism and peculiarities of content of vocational programs.

Programs of technical and vocational educational for persons, having secondary general education, provides for learning of general professional, economic, and special subjects, determining future occupation in chosen specialty. Duration of training depends on complexity of vocational programs and level of conferred qualification.

Ensuring high quality training of qualified staff and specialists of technical and service labor will stimulate development industry, construction, SMEs, servicem and economy as a whole.

3.3. Post-Secondary Vocational Education

Post-secondary vocational education covers vocational education programs of training medium level specialists of service and management labor in the field of economics, law, education, sociology, psychology, medicine, and IT, and is done only on the basis of secondary general education. Duration of training (except to educational and medical specialties) is 2 years, and on the basis of technical and vocational education is less than 1 year.

Goal: satisfying needs of society and economy in qualified medium level specialists of service and management labor in accordance with the demands of social and economic development of the country.

Tasks:

Establishment of regulatory and training-methodological bases for activities of post-secondary vocational education institutions;

Ensuring accessibility and choice of different levels of vocational education, taking into account needs of society, economy and citizens, on the basis of secondary education;

Improvement of content of post-secondary vocational education programs, basing on credit technology of education;

Ensuring quality of medium level specialists training with advanced level of management and service qualifications in accordance with demands of employers;

Introduction of mechanism for government procurement distribution for training of medium level specialists of service and management labor.

Content of education programs at this level provide for studying of associated educational programs along with professionals ones, including social-humanitarian and natural science subjects integrated with educational programs of 1-2 courses of bachelor training in higher education institutions.

3.4. Higher Education

Main trend in development of higher education is improvement of specialists training quality, provision of new fields of training, innovational development, integration with intensive scientific-research and industrial activities, close link of university research with needs of society based on improvement of educational and information technologies.

Goal: satisfying need of society, state and persons in acquiring high quality higher education, and providing every person with broad opportunities in choosing content, forms and duration of training.

Tasks:

Training of competitive specialist of new pattern, having broad fundamental knowledge and able to adapt to changing demands of labor market and technologies;

Improvement of specialties structure, scientific and training-methodological support;

Development educational programs harmonized in their duration and content;
 Strengthening and modernization of material-technical and training-laboratory framework of higher education institutions;

Development and application of progressive educational technologies, including credit and distant technologies;

Involvement of scientific organizations' capacities for training of specialists in higher educational institutions;

Enhancement of motivation within entire system of higher education for delivery of high quality educational services through democratization of educational process;

Preparation of certain universities to accreditation of vocational educational programs in compliance with requirements of leading foreign accreditation agencies;

Creation of conditions for development of elite universities;

Elaboration of new principles of university management, introduction of strategic planning system, quality management system and independence of universities;

Strengthening students' right for quality education; development and application of mechanisms establishing responsibility of university managers for delivery of quality educational services.

Programs of higher educations are implemented through bachelor training.

Specific content of bachelor training is based on standard subject curricula.

Standard duration of bachelor training is 4 years, resulting in final state certification, conferring relevant academic degree in one or other field.

Bachelor graduate have further opportunity to continue education at 1 or 2-year master training.

3.5. Post-Graduate Education

Post-graduate education is the highest level of continuous education system carried out through master and doctor (PhD) training.

Goal: basing on integration of education with science, establish effective system of training scientific and scientific-teaching staff of new pattern, able to solve issues of improvement of society, economy, industry and science and development of new technologies.

Tasks:

Transfer master training to post-graduate level;

Development and introduction of programs for PhD training;

Development of mechanism for introduction of model of training scientific-teaching staff at master level in universities and scientific organizations;

Introduction of integrated bachelor-master-doctor three-level training, based on accumulating credit technology of education;

Ensuring targeted training of masters and doctors based on updated educational programs according to demands of labor market;

Establishment of PhD training centers on the basis of best Kazakhstani universities in partnership with leading foreign universities, having accredited doctoral programs;

Further rationalization of the network of thesis councils in order to modernize training of scientific-teaching staff;

Integration of education and science according to principle “education through research – research through education”;

Monitoring staff potential of the country, forecasting needs in specialists with higher scientific qualification at regional and national levels;

Improvement of system of certifying scientific and scientific-teaching staff of higher qualification.

Master training provides for specialized and scientific-teaching training with standard duration of 1 to 2 years. Master holders can continue education at doctor level.

Master and doctoral programs are based on fundamental educational, and methodological training and advanced studying of subjects in narrow fields of science.

Master and doctor holders independently carry out scientific research and use its results in educational activities.

3.6. Further Training and Retraining of Staff

Further training and retraining of staff is the main form of extended vocational education based on need in ongoing improvement of profession training during whole lifetime.

Goal: establishment of effective system of further training and retraining of staff, extending professional knowledge and skills, and acquiring new professions and specialties in accordance with the requirements of industrial innovational development of the country.

Tasks:

Creation of conditions for accessibility of extended vocational education, satisfying of the needs of individuals in continuous acquiring of knowledge about leading local and foreign experience;

Development of educational and vocational programs of various content and duration;

Development of sectoral infrastructures for further training and retraining of staff;

Development of distant models of further training and retraining of staff;

Creation of mechanisms for immediate responding to specific needs of the society;

Increase in funding for further training and retraining of staff at the expense of state and other sources;

Development and strengthening of material-technical, scientific, training-methodological, and informational bases of further training and retraining of staff;

Intensification of international cooperation in the domain of further training and retraining of staff;

Research, generalization and dissemination of leading scientific-teaching and professional experience.

Implementation of the defined tasks requires transition to new educational technologies, focused on extension and development of professional competence, and also mobility of human resources in dynamic conditions of innovational development.

Special attention will be paid to further training and retraining of staff as a fundamental condition for improving quality of education in the country and its integration in international educational space.

3.7. Teaching Staff

Key element of the new model's implementation shall be teaching staff of new pattern.

Training of teaching staff is the priority and backbone sector of Kazakhstani education.

Goal: Advance training of teaching staff, meeting growing educational needs of the state and different social groups.

Tasks:

Creation of legal, economic, and organizational conditions for formation of professionally competent, socially active and creative personality of teacher;

Update of the content of teaching education aimed at improvement of quality of training teaching staff, basing on specialization, multilingual capacity and informatization of training;

Ensuring continuity of the content of teaching education, methods, and forms of education at all levels of the system of continuous teaching education;

Creation of conditions for continuous general and professional self-education of teachers;

Improvement of teachers' social status;

Development of system of materials incentives for teachers and attaching teachers at jobs;

Development of material-technical base and scientific-methodological support, ensuring improvement of professional level and informational culture of teachers;

Improvement of educational innovation and information technologies;

Training teachers in integrated specialties, taking into account peculiarities of teaching in ungraded schools and specialized classes, and organization of educational work groups, including children of different age;

Training of new generation of scientific-teaching staff for teaching at doctoral, master and bachelor level, in organizations of post-secondary, technical and vocational education, in 12-year school and preparatory school;

Development of scientific fundamentals and scientific-practical methods for diagnostics of teaching education quality;

Improvement of the system of state certification of teaching staff, including managers.

Training of teaching staff for preschool education in addition to giving major specialty will provide for opportunity of supplementary specialization: teacher psychologist, working with children of preschool age, manager of preschool education, English teacher for children of preschool age, teacher of extended education. Education programs of preschool teachers should focus on formation of professional skills associated with observing internal condition of children, managing their behavior, programming of personal growth, and knowledge of basics of teaching diagnostics.

Education programs of teaching specialties will be oriented at training of multilingual teacher, fluently speaking in at least 3 languages, and having knowledge of innovation teaching technologies. New type of teacher shall have skills of sourcing, research and creative activities, latest information and distant technologies of education.

3.8. Informatization of Educational System

Intensive development of educational system based on use of ICT is a national priority. Application of ICT is critical for improving competitiveness of the national system of education and expansion of possibilities for its integration in the global education space.

Goal: Creation and development of information environment, enabling unity of educational space throughout the country and access to quality education.

Tasks:

Creation of information infrastructure of the system of open education, including:

- 1) Development of legislative framework;
- 2) Creation of sectoral information system;
- 3) Development of corporate computer network of educational system basing on single transport environment of electronic Government of RK;
- 4) Equipping educational organizations with modern computer machines, software and telecommunications;
- 5) Ensuring educational organizations' access to global information resources, first of all to Internet;

Use of ICT in educational process, including:

- 1) development and introduction of electronic text-books establishment of educational information resource centers in Kazakhstan regions;

2) training and retraining of administrative, engineering-technical and scientific-educational staff of educational system, able to effectively use latest ICT in educational process;

3) development of technologies, software and tools of distant education for continuous education and ensuring computer self-education.

In order to create, develop and use information educational network it's necessary to involve fully scientific-methodological, information, technological, organizational and teaching potential, accumulated in the field of informatization.

3.9. National System of Education Quality Assessment

Creation of National System of Education Quality Assessment (NSEQA) will allow for executing constitutional rights of citizens for quality education, facilitating proper functioning and sustainable development of educational system, and elaboration of development strategy and this social sector. Key principles of NSEQA are: unbiased assessment, openness, transparency, regularity, succession, accountability and continuity.

Goal: achievement of educational quality, ensuring competitiveness of local education and citizens of Kazakhstan in international educational space and at the labor market through introduction of external objective assessment tools and system of monitoring education.

Tasks:

Institutional assessment of quality of education through all levels of education;

Improvement of external assessment of students' performance;

Elimination of factors causing subjectivity of students' knowledge assessment;

Increase of responsibility of local governments, local education authorities, and heads of educational organizations for results of education;

Carrying out systemic and comparative analysis of quality of educational services, supporting sustainable development of educational system;

Ensuring continuity of assessment results between different levels of educational system;

Development of education indicators;

Comparative monitoring of learning achievements of students in Kazakhstan with those in other countries within international studies;

Providing incentives for participants of educational process for continuous education.

Creation of NSEQA pre-supposes taking of measures for further improvement of the system of licensing, certification, and accreditation of educational organizations, approaches to measuring parameters of education quality. It's necessary to activate processes of introduction and optimization of external assessment and internal control of quality.

Creation of single system of quality assessment will encourage development of education as an integrated and competitive system based on international quality standards, indicators and criteria.

4. Key Directions and Implementation Mechanisms of the Program

In order to implement defined tasks it's necessary to:

Transform content of education from knowledge-focused to competent and performance-oriented;

Define mechanism for development and publishing of training literature for educational organizations of all levels, create opportunity for educational organizations to choose training literature;

Bring material-technical base, subject-space environment and training-methodological support of educational organizations in compliance with the requirements of educational process;

Strengthen language, information, environmental, economic and legal training of students;

Increase of parents' responsibility for education and up-bringing of children;

Improve structure and content of vocational educational programs of training, retraining, and further training of staff at all levels of education;

Ensure continuity of levels of educations by its content and duration.

With view to satisfy increasing needs of people in services of preschool education it's necessary to create:

Pre-school centers of different profile (physical training and health improving, humanitarian, sports, esthetical, linguistic, parents training, intended for talented children, etc.).

Pre-school organizations of national and foreign culture and languages;

Family kindergartens;

Offices of correction and inclusive education;

Mini-centers attached to general schools with groups of short-time staying.

Local administration and methodological support to pre-school education should be implemented by relevant divisions within education bodies. It will allow for comprehensive and effective organization of pre-school system infrastructure and coordination of efforts of all stakeholders in solution of pre-school development of children.

In content of preschool organizations' activities special attention should be paid to teaching the official language, development and introduction of new and effective methods of teaching the Kazakh language.

Implementation of the Program will facilitate:

Expanded coverage of disabled children by correction organizations;

Creation of unified form of keeping records of and control of disabled children;

Keeping and expanding of the network of special correction education organizations;

Establishment of modern models of special education organizations;

Ensure disabled children's access to pre-vocational and vocational training in order to secure their social welfare;

Integration of disabled children in the environment of healthy children of the same age for purposes of their development;

Improvement of staff system of special education.

In 2008 transition of secondary education to 12-year school will be made.

Educational process will be aimed at:

Bringing-up needs and abilities for independent acquiring and application of knowledge in practice, purposeful and systemic introduction to scientific methods of cognition;

Development of a student as a personality and subject of activities, formation of life values;

Respect to national culture and openness to other cultures;

Formation of key notions of market economy and quality, ability to use them in practice.

Due to adoption of new methodological approaches to organization of secondary education, a number of measures will taken with regard to content and process.

It's planned to build and open 80 specialized boarding schools for children, studying in ungraded schools, in rural area. In order to create open educational space, distant and other innovational forms of organizing educational process will be introduced .

Study of secondary educational programs will result in Single National Testing.

Improvements will be made in regulatory and social legal basis, technologies, psychological, medical, and educational support in identification, education and development of talented children. Management system will be developed for formation of intellectual potential, basing on continuity of different components of education.

Program of complex support to talented children and youth will be further implemented; part-time schools for talented children will open and operate on the basis of leading universities in the country; cooperation with international and non-governmental organizations will develop.

With view to improve and modernize system of special education it's proposed to:

Develop and expand network of special correction organizations at the expense of government and other sources of funding;

Develop norms of organizing educational and rehabilitation processes, material-technical, staff, special methodological and rehabilitation support; unified form of keeping records of and control of disabled children;

Create educational space supported by software and methodological tools for disabled children;

Develop state support measures for integrated education of disabled persons, organize education of children, who formerly were considered untrainable; establish system of psychological-educational and medical-social support to such children;

Review the model of training, retraining, and further training of special education staff;

Develop mechanisms for higher access of disabled children to pre-vocational and vocational training.

With view to develop extended education it's proposed to:

Expand and develop network, develop new models of extended education organizations, corresponding with interests and social needs of children and their parents;

Take timely measures ensuring sustainable development of extended education of children (funding, computerization, strengthening of material-technical base, development of regulatory framework of economic activities);

Improve and strengthen retraining, and further training of teachers in the system of extended education;

Use of innovation educational technologies, maximum coverage of children from socially vulnerable groups and children with deviant behavior by out-of-school activities;

Create conditions for visiting organizations of extended education by disabled children.

International, non-governmental organizations and private sector will be involved in development of special and extended education.

With view to develop technical vocational and post-secondary vocational education it's proposed to:

Expand and develop network through building of new organizations and strengthening of material-technical base of existing organizations of vocational education;

Develop mechanism for short-term and long-term forecasting of market needs in staff;

Increase national budget's funding for vocational education and training of qualified specialists of technical and service labor at regional level and in specialties of short supply and strategic importance;

Create mechanism for encouraging private sector investments in the field of technical vocational and post-secondary education, improve regulatory framework, including preferential taxation;

Develop and introduce text-books and training-methodological complexes of new generation;

Carry out informatization of organizations of technical vocational and post-secondary education;

Develop system of retraining, and further training of technical vocational education staff;

Harmonize state mandatory standards of vocational education with ISCO 2003;
Establish mechanisms supporting employment of young professionals, studying at the expense of state funds.

Being a special area, higher education will be given new quality and social status for first-priority and advance training of highly qualified specialists.

To implement defined tasks it's intended to:

Improve management system of universities in compliance with requirements of open civil society through increasing of public control of their activities;

Introduce credit technology of education;

Improve technology of organizing educational process, making it subordinate to interests of students, and facilitating competition among teachers;

Develop and introduce reduced educational programs of bachelor training, harmonized with programs of post-secondary vocational education;

Introduce mechanism of distribution of government procurement for training of professional staff among best universities of the country;

Ensure financial-economic transparency of universities to increase public trust to their activities;

Improve management system of universities via further democratization of management system and educational process in order to ensure independence of universities and students' rights for quality education;

Introduce legislative norms, stipulating responsibility of university managers, irrespective of organizational-legal form, for quality of delivered educational services;

Improve quality management system in educational organizations;

Encourage accreditation of vocational educational programs according to the requirements of leading foreign accreditation agencies.

Structure of higher and post-graduate education will be transformed in system of staff training through bachelor, master and doctoral courses, which must be in consistence with each other.

Bachelor training is a level of higher education, where the first two years will be maximally unified.

During the subsequent two years of bachelor training basic subjects will be taught. Specialized training will be delivered within higher education component.

Content of educational bachelor programs provides for broad general vocational training, aimed at teaching fundamental subject knowledge, to provide bachelor graduate with general integral methodology of job activities, develop his professional creative work, and establish need in self-education.

Educational bachelor programs shall be implemented through credit technology of education, which ensures continuity and accumulation of learning achievements and mutual recognition of educational programs.

Master training has two focuses:

Specialized advanced training; and
Scientific-research training.

Educational master programs provide for scientific-methodological emphasis of education and advanced specialized training in relevant area.

Master graduates will be granted academic degree of Master. Masters may continue education at doctoral level.

Doctor training is final educational level of training scientific and scientific-teaching staff of higher qualification.

All current forms of thesis work will be transformed in PhD.

Doctoral programs will be characterized by:

Ensuring optimum balance between learning and research activities;

Acquiring broad scientific, educational and methodological training;

Ensuring academic mobility of teachers and scientific workers of the country .

Persons, having completed doctoral program and defended doctoral thesis, will be granted academic degree of PhD; in case of specialized doctoral studies – Doctor degree in the field of specialization (medicine, music, education, law, etc.).

Duration of doctoral program is minimum 3 years.

Post-graduate education will meet the requirements of market economy, globalization processes, and international recognized standards; contribute to enhancing young people's interest in seeking academic degree and to solution of problems of renewal of scientific-teaching staff of the country.

Integration of education and science shall be further pursued in the following directions:

Concentration of resources on scientific areas of high priority;

Establishment of training-scientific organizations, and research laboratories in universities and university departments' branches in scientific organizations;

Joints research made by universities and scientific organizations, administrating scientific programs;

Establishment of industrial parks by universities and scientific organizations.

These forms of interaction will allow for rational use of scientific potential, will facilitate real integration of education and science.

In the field of further training and retraining it's planned to:

Reestablish system of further training and retraining of scientific-teaching staff on the basis of leading universities;

Develop sectoral infrastructures for further training and retraining of staff;

Develop and introduce educational and vocational programs of various content and duration;

Create mechanisms of immediate response to specific needs of society in educational services;

Increase funding for system of further training and retraining of staff at the expense of government and other sources;

Develop and strengthen material-technical, information, scientific, training-methodological bases of system of further training and retraining of staff;

Enhance international cooperation in the field of further training and retraining of staff;

Establish sectoral centers for research, generalization, and dissemination of best experience;

With view to improve training of teaching staff of new pattern it's intended to:

Create variable models of training, ensuring maximum diversity and continuity of content, forms, and methods of training teaching staff, taking into account demands of educational organizations and international experience;

Introduce and support educational programs of training teaching staff, continuous teaching practice during all years of training, and psychological-teaching practice;

Retraining of subject teachers under shortened educational programs of second specialty, including the official, foreign and native languages, informatics, and psychology;

Organizing teaching internship at the last year of studies, during the period of three months to one year, evaluating performance of student by all subjects of educational activities;

Ensuring training on broad scope of teaching specialties according to the needs of educational organizations, including pre-school, special, extended general and vocational education;

Develop a new system of certification and re-certification of teachers, including managers;

Improve mechanisms of labor incentives and attaching teachers to jobs;

Retraining and further training of teachers and managers of educational organizations, taking into account new content of education, changes in technologies and methodology of education.

Implementation of education informatization tasks supposes annual preparation of list of priority informatization activities, specifying responsible persons, sources and amounts of funding, and coordination plan of joint efforts of Ministry of Education and Science and other government agencies. Ministry of Education and Science will establish a Council responsible for general coordination of activities for implementation of informatization block of the Program.

With view to implement National System of Education Quality Assessment (NSEQA) the following interrelated elements of this system will be used:

Procedures of external and internal assessment of education quality;

Standardized assessment methods and tools determining the level of learning achievements of students;

Organizational structures carrying out assessment of education quality.

External assessment of educational organizations provides for procedures of licensing, certification, accreditation, ranking, centralized testing and direct monitoring research.

Internal assessment shall be done in the form of self-appraisal (self-certification), current control of school results, assessment of educational achievements of students carried out in educational organizations.

Procedures of licensing, certification, and accreditation of educational organizations will be carried out in accordance with legislative acts and regulations of Kazakhstan.

Centralized testing of students will be done on the basis of standardized evaluation methods and qualification tasks developed in accordance with state mandatory standards of all levels of education.

State control of educational achievements of students in the form of centralized testing will be done upon completion of every level (secondary general education) (4 grade, 9 (10) grade, 11 (12) grade, graduation year in colleges and universities).

NSEQA will be supported by relevant infrastructure. It will comprise National Center for Education Quality Assessment (NCEQA), National Center for State Education Standards and Testing (NCSEST), National Accreditation Center (NAC), Center for Certification of Quality Management and Consulting (CCQMC), and Republican Center for Assessment and Conferring of Qualification (RCACQ).

NCSEST carries out external assessment of educational achievements of students at all levels of education in the form of centralized testing; provides methodological, technological, and technical support; organizes development of state mandatory standards of education and programs, and creates scientific and methodological base for development of mandatory standards content.

NCEQA carries out monitoring of status of educational system in Kazakhstan. It generates statistical database for analysis and assessment of quality, consolidates information resources in single system of monitoring of education sphere and prepares National report on status of education in Kazakhstan.

NAC shall carry out institutional accreditation of universities and accreditation of educational programs, develop standard criteria and procedures of accreditation to harmonize quality assessment with requirements of Bologna process, to fulfill procedures of recognition and nostrification of diplomas issued by foreign educational organizations, and participate in international networks for quality assurance.

It's expected that CCQMC will be responsible for introduction and certification of quality management systems in universities, basing on ISO standards 9000 and 14000 series, for development of training-methodological and normative documents in the field of quality management.

RCACQ will provide organizational-methodological support to independent assessment of professional training, assess and confer qualification to labor staff and specialists of technical and service labor.

5. Required Resources and Sources and Funding

To create conditions for transitions to new model of Kazakhstani education first of all it's necessary to strengthen economic basis. Total amount of additional expenditures requires for implementation of the Program will make 152,977 million Tenge as per base prices of 2004 (Table 2).

Table 2
(million Tenge)

	2005	2006	2007	2008	2009	2010	Bcero
National budget	3 747,6	4 826,8	6 431,6				
Local budget	3 385,6	3 718,4	4 067,0				
State budget	7 133,2	8 545,2	10 498,6	41 900,0	41 200,0	43 700,0	152 977,0

Amounts of funds allocated for implementation of the Program will be adjusted during planning of national and local budgets for relevant fiscal year.

6. Expected Results of Implementation and Indicators of the Program

As a result of the Program implementation Kazakhstani system of education shall provide for the following:

- Effective and optimal system of education administration;
- Implementation of the principle “education for everyone during whole lifetime”;
- High quality and competitive, performance-oriented education;
- Accessibility and continuity of all levels of education;
- Advance development of education as relative to other social areas and economic sectors;
- Positive public opinion about high priority of education sphere as an essential condition of social-economic progress in all fields of public development;
- Effective system of scientific and training-methodological support to all levels of education;
- Formation of professionally competent personality, competitive specialist able to solve professional tasks independently and creatively, realize personal and public importance of professional activities, and take responsibility for its results;
- Creation of single educational information environment of educational system;
- Establishment of effective sectoral system of educational statistics, integrated in current national statistical system, unified, and comparable in international context;
- Establishment and maintenance of system for monitoring and forecasting of educational system development;
- Increase of government support and improvement of labor incentive mechanisms for teachers;
- Social partnership in vocational training of staff;
- Facilitation of scientific and innovation activities in the field of education.

Implementation of the Program will allow establishing regulatory basis for effective operation of education system.

The Program will be implemented by phases:

First phase (2005 – 2007)

Regulatory framework and scientific-methodological base will be developed in the system of pre-school education to develop network of children pre-school organizations (preparatory school), fulfilling tasks of pre-school education not only as preparation of children to school, but also as a social institute, allowing women to work and supporting socially vulnerable and poor families.

Regulations will be developed for restructuring rural schools into open social institutes and multifunctional education organizations in order to establish complexes “school – kindergarten” in them .

With view to achieve new modern quality of pre-school education, corresponding to current and prospective needs of society, Republican Scientific-Practical Center “Preschool Childhood (preparatory school)” will be established. Task of the Center will be to develop and implement inter-subject and inter-sector strategies and approaches to early childhood, carry out research, review performance of pre-school education system, prepare state standards of pre-school education, encourage and activate innovation works, carry out psychological-teaching examination of training-methodological manuals, toys, and game equipment.

In secondary education improvements will be made in basic and specialized content of general schools; pilot curricula, programs, text books and training-methodological complexes will be developed and tested for benefits of transitions to 12-year secondary school.

At this stage the task creating performance-oriented secondary education will be solved, and following measures will be taken for this purpose:

1) development of educational goals system in the form of expected results, having the following three levels:

a) national level: striving and ability for self-development, tri-lingual capacity, Eurasian multicultural capacity, sociability, technocratness;

б) level of broad educational areas where, national goals must be specified in the form of key competencies;

в) level of educational subjects;

2) establishment of system of external progress and final evaluation.

3) changing principles of organizing instruction and role of student –from passive “recipient” of knowledge and skills to actively cognizing participant of educational process.

4) establishment of system of all-community participation in the process of discussions of expected results of school education and ways of their achievement, basing on monitoring data.

In system of special education implementation of the Program will facilitate the following:

Increased coverage of disabled children ;

Conservation and expansion of the network of special correctional organizations;

Establishment of unified form of keeping records of and control of disabled children;

Establishment of modern models of special education organizations to satisfy needs of disabled children;

Access to pre-vocational and vocational training of disabled children to ensure their social welfare;

Integration of disabled children in the environment of healthy children of the same age;

Improvement of staff system of special education.

In system of extended education conditions will be improved for:

Realization of creative abilities of children and formation of spiritually rich, physically healthy, and social-cultural persons;

Solution of the problem of minor children occupation in free time;

Bigger participation of schoolchildren in interest clubs and reduced number of children with asocial behavior.

Implementation of the Program will allow to establish regulatory framework for effective functioning of vocational education system, resulting in:

Establishment of legislative basis for involvement of real economy sector in organizing of staff training;

Increased accessibility of vocational education to satisfy needs of the labor market and society;

Transition to normative method of funding, taking into consideration regional peculiarities and specialization of training;

Strengthened links of vocational education with employers and SMEs; increased effectiveness of cooperation between social partnership participants;

Creation of new training, training-methodological literature, and training aids, corresponding with modern requirements of employers and standards;

Widely applied information system and technologies, and communication networks in educational process;

Establishment of system of assistance to graduates' employment, and retraining, including development of targeted contract-based training, formation of readiness to professional self-determination, including starting own business.

In the system of higher and post-graduate education Kazakhstan will join Bologna process, carry out full transition to integrated system of staff training (bachelor-master-doctor) and phased curtailment of current post-graduate courses, and open in leading universities PhD training programs together with leading foreign internationally accredited universities.

The following will be done:

Introduction of quality management systems, creation of conditions for accreditation of vocational educational programs of universities.

Ensuring academic mobility of students, teachers, and recognition diplomas.

Implementation of new model of training scientific and scientific-teaching staff based on real integration of education and science through updated master and PhD programs that optimally combine educational and scientific components.

With view to develop mechanisms of encouraging doctor training according to new program the following will be done:

Introduction of amendments and changes in licensing, certification, and accreditation requirements to universities and scientific organizations with respect to mandatory availability of PhD staff;

Introduction of amendments and changes in Qualification directory of titles of managers, specialists and other employees;

Establishment of mechanism. Ensuring parallel recognition of traditional diplomas of candidates and doctor o sciences and PhD diplomas.

At this stage there will be strengthened material-technical, information, and legislative bases of educational organizations in the field of proprietary interests, land will be given to them on non-repayable basis.

Implementation of informatization block of the Program will result in forming of basis for single educational information environment that will allow:

To form basis for single system of information and scientific-methodological support to educational development;

To establish sectoral information system for effective management of educational objects and processes on the basis on single transport environment;

To improve quality of education in educational organizations, including rural schools, through organizing institutions' access to general educational resources, rational use of teaching staff of higher qualification training of specialists in the field of latest ICT for every educational organization;

Connect to Internet 100 % of schools in the country by 2006;

Achieve number of computers in schools equal to 1 computer per 36 students by end of 2007;

Develop modern electronic training prints and introduce them in education process, organize publication of electronic training prints for major subjects of general school and ingrate them with conventional training aids;

Establish educational information resource centers in universities and regions of the country;

Establish system of methodological support of teachers educational institutions of all levels, carry out training and retraining of teaching, administrative, and engineering-technical staff in the field of new ICT;

Establish base of normative standardization documents in the field of open education, including distant technologies and ICT.

Improvement of educational statistics shall facilitate creation of new system of monitoring of education in Kazakhstan, based on statistical data and information about quality of education.

NSEQA will allow assessing quality of knowledge through complex exams, developing national system of monitoring quality of education, establishing complex

systems of ongoing evaluation of education quality, their components being learning achievements.

Unbiased tools of external and internal assessment of education quality will be developed, periodical rating of educational organization will be introduced.

Upon completion of every school year National report on status of education is prepared.

National Center for Education Quality Assessment, National Accreditation Center, Center for Certification, Quality Management and Consulting, and Republican Center for Assessment and Conferring of Qualification will start operating

Starting from 2006 Kazakhstan will participate in comparative analysis of real achievements of students within international studies: PISA, TIMSS, CIVIC, SITES, LES; and in international network of agencies for quality assurance in higher education: ENQA, INQAAHE and others.

Second stage (2008-2010)

Full-scale implementation of the Program, its adjustment, taking into account experience, labor market development, and social-economic conditions in the country, will start.

Due to gradual transition to compulsory pre-school education, starting from 3 years old, coverage of all children with pre-school education will be achieved. Increased potential and resources of pre-school education system will be effectively and efficiently used for implementation of programs of early education of children.

The following results will be achieved:

Complete transition to 12-year secondary education, training of highly qualified staff on bachelor, master and doctoral programs, and credit technology of education;

Development of performance-oriented National standards of education;

Changes in structure and content of vocational education programs;

Establishment of sufficient network and improvement of models of organizations of primary and secondary vocation education.

Equal opportunities will be created for disabled children with regard to receiving education, social and medical-educational correctional support and integration in the society; problems of minor children's occupation in their free time will be solved, opportunities will be created for realization of creative abilities of children of formation of spiritually rich, physically healthy and socio-cultural person.

Through introduction of quality management systems in universities, institutional assessment and accreditation of vocational educational institutions at the level of leading foreign accreditation agencies, implementation of key principles of Bologna declaration and compliance with requirements of WTO will be secured.

Basing on monitoring data, National report on status of education, and results of rating of educational organizations, there will be established system of informing public and economic entities about demand for various professions, availability and

quality of educational services in different educational organizations, region and country. Also on this basis education development strategy will be determined.

There will be organized system of open education, including interactive distant technologies of education for educational organizations of various levels, and systems of retraining and further training of staff.

By end of 2010 number of computers in schools will achieve 1 computer per 20 students.

Implementation of the National Program on Development of Education in the Republic of Kazakhstan till 2010 will result in effectively functioning Kazakhstani model of education, and qualitatively high level of education and staff training, allowing Kazakhstan to occupy worthy place in modern world.