THE LAW
OF THE REPUBLIC OF ARMENIA
ON APPROVING THE EDUCATION DEVELOPMENT STATE
PROGRAMME OF THE REPUBLIC OF ARMENIA
2011-2015

Adopted on June 23, 2011

Article 1. Approve the Education Development State Programme of the Republic of Armenia for 2011-2015 in accordance with the Annex.

Article 2. Declare void the Law of the Republic of Armenia N 199 adopted on June 26, 2001 "On the Education Development State Programme of the Republic of Armenia for 2001-2005.

Article 3. The present law enters into force on the next after the 30th day of its official publication.

President of the Republic of Armenia
S. Sargsyan

July 19, 2011
Yerevan
HO-246-N

CONTENTS

1. INTRODUCTION

1. The Education Development State Programme is the organisational basis for formulating the public policy of the Republic of Armenia in the field of education in accordance with the Law on Education of the Republic of Armenia. The Education Development State Programme of 2011-2015 (hereinafter "the Programme") was developed in accordance with the provisions of Decree No PD-37-N of February 7, 2007 adopted by the President of the Republic of Armenia "On Approving the National Security Strategy of the Republic of Armenia" and the Decree of the Government of the Republic of Armenian No 1207-N of October 30, 2008 "On Approving the Programme of Sustainable Development".

2. The Programme is based also on the strategic programmes and the concept papers of sub-sectors approved by the Government of the Republic of Armenia as well as on the concept paper "Education - 2015" developed with the support of the United States Agency for International Development (USAID).

3. The Programme builds on the already accomplished achievements in the educational system and aims at the gradual development of these achievements with outlined priority directions and strategies.

2. CURRENT SITUATION IN THE EDUCATION SYSTEM AND ITS MAIN PROBLEMS

4. The reforms in the field of education were launched in Armenia after the declaration of independence in conditions of new economic and social relations.

5. The reforms accomplished in the course of more than 10 years made possible to solve many problems existing in the education system, to stabilise the situation and create preconditions for further development. Nevertheless, the education system was still far from the full-scale and comprehensive accomplishment of its mission, whereas new challenges have emerged, surmounting of which predetermines the future of education.

6. However, the system of education has appeared in a situation, where because of the absence of tangible results of the accomplished reforms and the achievements acknowledged by the society, the reputation of educational institutions has been seriously tarnished and the credibility of reforms and system potential has been exceedingly undermined. At the same time education continues to be an absolute value among national priorities and an important element of social-economic progress both in public perception and state policy.

7. The ultimate priority in the field of education is the raising of its quality while ensuring an efficient operation of the system and equal opportunities of citizens for receiving an education that is meeting their aspirations and abilities.

2.1. Education Access and Participation

8. The indicators of enrolment that give grounds for assessing the accessibility of educational services for any social group in the country are among the key characteristics of an education system.

9. **The preschool education is the most vulnerable from the point of view of accessibility.** At present there are no preschool institutions (PSI) in over 400 communities of the country and the gross enrolment rate (GER) in preschool programmes in 2009 has been 24.3% (31.5% in urban communities and 11.7% in rural communities). Acknowledging the important role of preschool education for versatile development of children and general productivity of the school education system and for creating equal starting opportunities for school education the government of the Republic of Armenia has approved in 2008 the "*Strategic Programme of Reforms in Preschool Education for 2008-2015"* (Paragraph 13 of Protocol N. 10 of March 13, 2008 Session of the Government of the Republic of Armenia "On approving the strategic and pilot programmes of reforms in preschool education of the Republic of Armenia for 2008-2015), which plans to raise GER in senior preschool age group (5-6 years) to 90% by 2015. The programme prioritises disadvantaged families and communities with no preschool institutions.

Table 1. Gross enrolment in preschool institutions by urban and rural communities

Year	Number of preschool institutions			Number of attending children			Inclusion rate (%)		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
2004	653	422	231	45971	37993	7978	20,0	27,4	8,7
2005	645	429	216	48674	40317	8357	21,8	29,7	9,6
2006	645	417	238	48015	39161	8854	21,8	29	10,5
2007	637	415	222	50491	42102	8389	23,3	31,1	10,3
2008	628	380	216	53718	44736	8982	29,8	39,3	13,6

Source: Social Situation in the Republic of Armenia, 2005-2009.

10. **Armenia does not have any significant problem with participation in general education.** For comparison, the GER in the secondary education has been high in the recent years and has reached up to 90%. The enrolment in basic education being homogeneous from regional, gender and poverty aspects has been 92.1% in 2009, and therefore there is no significant discrepancy in the country in this sense. At the same time, the GER in high schools has been significantly lower in 2009, making 83.9% (see Table 1). However, around 10% of graduates of basic education continue the training in primary and middle vocational education system. That is to say the low enrolment rate in high schools does not mean yet that a significant part of students leave the education system after completing the basic school. However it is a different question to which social groups belong the children who continue the education in high school, that is to say aspire for higher level of education.

Figure 1. GER in general education (%)

Source: Social Situation in the Republic of Armenia in 2009.

11. **The involvement of poor and non-poor population in high school is essentially uneven,** unlike the situation in the basic education. The gross participation of the most well-to-do group in high school exceeds the participation of the poorest group for 1.3 times. Thus, the majority of those who leave the general education system after graduating the basic school are poor (see Figure 2). According to the results of the Integrated Household Living Conditions Survey (IHLCS) (source: Sustainable Development Programme, 2008) only for 2.8% of young people of age 18-19 from non-poor families the basic education is the highest level of educational attainment, whereas this rate reaches 16% for the same age among poor families. The situation is worse among children from extremely poor groups of population, where the rate of drop-outs reaches 35%. The High Schools Consolidation Programme might even increase this inequality, as far as the programme does not cover small rural communities, which are the most susceptible to poverty.

Figure 2. Enrolment rate in secondary and high schools by quintile groups
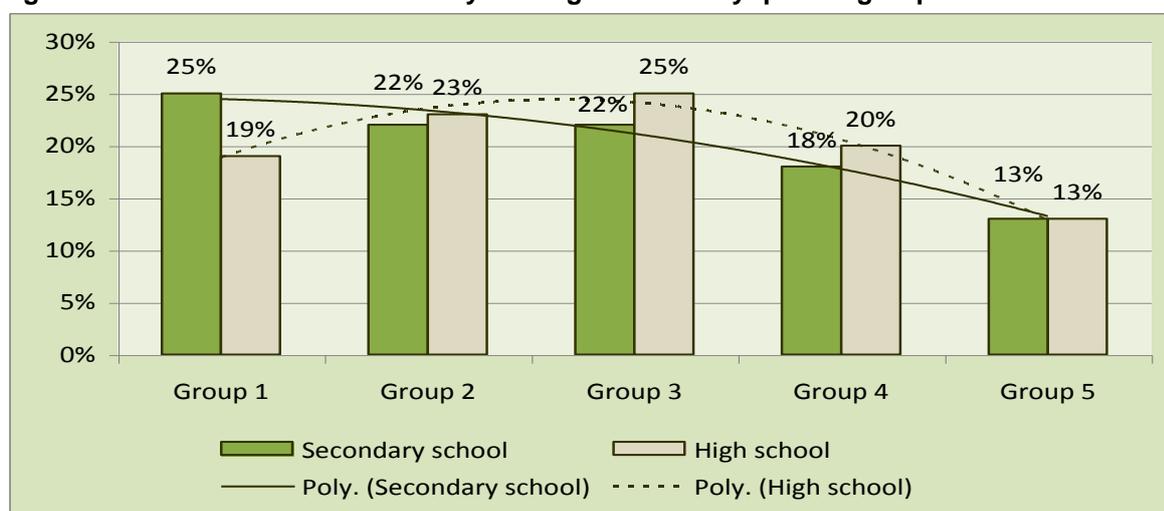
Source: "Revenue Distribution Analysis", Advanced Social Technologies NGO, 2010.

12. **There is a certain gender disproportion in high schools as well.** According to statistics, boys are the majority in elementary and basic schools. However this trend changes in high schools with a growing proportion of girls, which means that boys more often leave the school after completing the basic education.

13. **Data on involvement of children with special needs is incomplete.** According to approximate estimates, the number of children with special needs is around 8000 in Armenia. Whereas the number of children covered by special general education institutions and inclusive education programmes is around 4000. As long as the system of revealing the children with special needs and the inclusive education are not comprehensively established yet in the whole country, it is impossible to give an unambiguous answer to the question whether these children are left outside the education system or they attend general education institutions without being formally acknowledged as children with special needs.

14. According to the results of a survey on school attendance (School Wastage Study Focusing on Student Absenteeism in Armenia, Haiyan Hua, Yerevan, 2008), although **the rate of drop-outs as compared to other developed or developing countries has been considerably lower, however has grown over years.** In three years between 2002 and 2004 the total number of children not attending schools has been 1,531; 4,823 and 7,630 respectively and the non-attendance rate has been correspondingly: 0.3%, 1.0% and 1.6%. During these three years the average growth rate of absenteeism has reached 250% annually. In 2008 the number of graduates from elementary school has been 97.2% of the number of children that have entered the school in the corresponding year because of the drop-outs, and the number of graduates from the basic school has been correspondingly 96.4%. The reasons underlying these trends need additional analysis and corresponding preventive measures, since Armenia's Millennium Development Goal 2 is to raise the GER in basic school up to 99% and in high school up to 95% by 2015.

15. **Since 2001, the enrolment rates in vocational education have steadily grown, however they are still quite low as compared with the rates of the countries of Central and Eastern Europe and the CIS).** In 2006, the GER in professional programmes has been approximately 38%, whereas it has been nearly 28% only at university and post-graduate levels as compared to 21.3% in 2003 (according to data of 2004 this rate has been 43% in the countries of Central and Eastern Europe and the former Soviet Union).

16. **The enrolment rate of students from poor and extremely poor families in higher education is very low.** The enrolment rate of the poor is for 5.4 times and the enrolment rate of the extremely poor is for 8 times lower than the enrolment rate of non-poor population (see Figure 3). The enrolment level of poor and extremely poor classes of population in the higher education has also geographic disproportion in favour of the capital. The enrolment rate of the poor population in provinces (marzes) is for 2.1 times and in rural communities for 4.3 times lower.

Figure 3. GER in professional education programmes by poverty groups
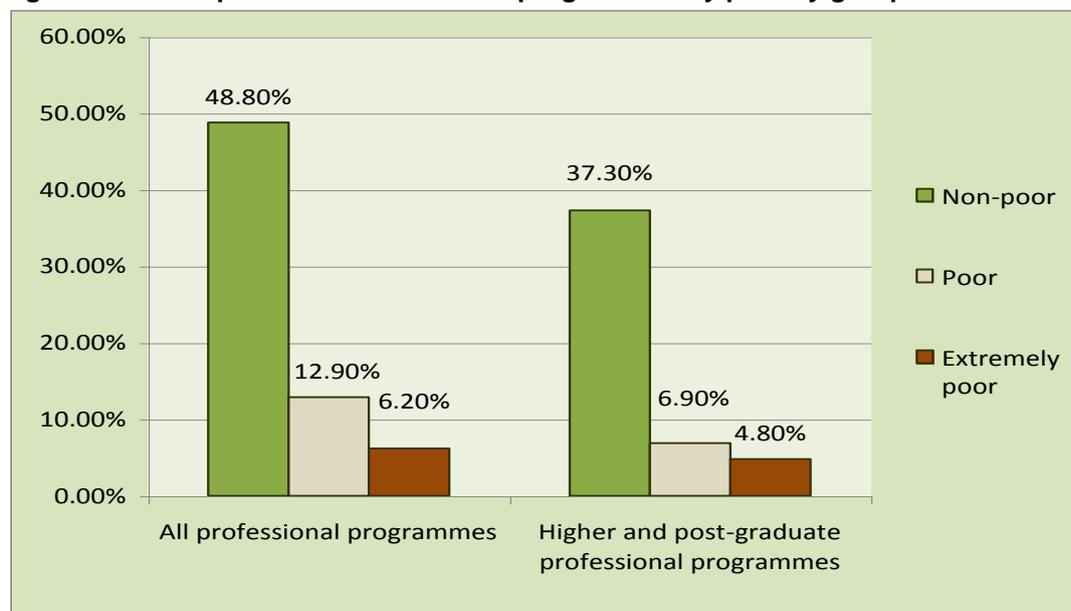
Source: RA NSS, Survey on Integrated Living Conditions, 2005.

17. Such low level of inclusion of poor population in higher professional education system is caused not only by the high tuition fees charged in the paid education system, but as well by a number of other social factors that are connected with other tutoring and preparation costs. The families that have a high school student allocate 73% of their total education expenses to tutoring, while the level of consumption for the poorest quintile group is 12.2 times lower than the average level of services in the field of education. Well-to-

do families spend a lot on education, especially on private classes or tutors, whereas the poor population groups cannot afford it.

2.2. Quality and Relevance of Education

18. Considerable progress has been made towards improving the quality of education, particularly in the field of general education. The 12-year education system has been introduced, the curricula have been reviewed and updated, a unified testing system for school graduation and university entry exams has been introduced, large-scale training programmes for teachers have been organised for raising skills in using modern teaching methods and information technologies, the procurement of computer equipment and Internet access for schools has been improved, the programme of consolidation and enhancement of high schools is in process. Following the principles of Bologna and Copenhagen processes, a series of initiatives have been launched for improving the quality of professional education and enhancing the capacity building of professional education in line with the requirements of the labour market and the European standards of quality. In particular, the standards for professional education have been reviewed, three-cycle education system has been introduced, the National Centre for Quality Assurance of Professional Education has been established, the internal and external quality assurance systems are currently being developed, and twelve colleges have been refurbished with new laboratories and technical facilities. **Despite considerable progress, the quality continues to remain a problem at all levels of education.**

2.2.1. Quality Output Indexes

19. Although the quality of education has been among the most frequently discussed problems in recent years, so far there is **no reliable and trustworthy system of quality output indexes.**

20. The quality assurance system in professional education is still under development, whereas the results of the graduation and unified entry exams obtained so far are insufficient to assess accurately the true quality of education. The underlying reason is that the tests applied for the same subject over different years or the tests applied for different subjects for the same year are not identical, and the school graduation and unified entry exams are held through different procedures.

21. In Armenia the most reliable current quality indexes for school students are the results of the international assessment of achievements in mathematics and natural sciences done by the Trends in International Mathematics and Science Study (TIMSS), in 2003 and 2007. In 2007 Armenia made an unprecedented progress as compared to 2003 (see Table 2). Armenia occupied an average position by almost all indexes getting ahead of many European countries.

22. Another important indicator for the quality of education is the level of satisfaction of the beneficiaries. According to the report of the "Global Economic Forum" of 2009-2010 Armenia ranks as low as 81st among 133 countries with an index of 3.3 for satisfaction with the quality of elementary education (the international average index is 3.8, the maximum is 7) and ranks 105th with the index of 3.0 (international average index: 3.8) for the quality of education system (Source: Global Competitiveness Report, 2009-2010, World Economic Forum). A low level of satisfaction was reported as well by the results of the Integrated Living Conditions Survey, however, the level of satisfaction with the quality of paid education services reported by households in 2009 has grown by 12.2 percents as compared to 2004 and makes as low as 62.2% (Source: The Social profile of Armenia and Poverty, 2010, page 197).

Table 2. Results of TIMSS for 2003 and 2007

		Mathematics 4th grade	Mathematics 8th grade	Natural Sciences 4th grade	Natural Sciences 8th grade
2003	Armenia	456	478	437	461
	International average index	495	467	489	474
2007	Armenia	500	499	484	488
	International average index	500	500	500	500

Source: http://timss.bc.edu

23. An essential requirement for the further development of efficient policies for improving the quality of education is the enhancement of data receiving mechanisms, supported by the introduction of quality assurance procedures, expansion and development of information management systems for education.

2.2.2. The Teaching Staff

24. Teachers play a key role in improving the quality of education and insuring success of the reforms. **In quantitative terms, there is no shortage of teachers in Armenia.** The number of teachers working in general schools has been 41,512 in the academic year 2009-2010 (source: Social-Economic Situation of Armenia in January-March, 2010). The average teaching load per teacher has been 0.95% of the full time

teaching load. The number of teachers working in general education has decreased as compared to the previous years, which is connected with both decrease of the number of students and the implementation of programmes aimed at raising the effectiveness of the education system. At the same time, due to the programmes of commissioning teachers to remote border settlements, accomplishing targeted trainings for teaching staff from provinces (marzes), leading a continuous policy of raising the salaries of teachers have actually solved the problem of teaching staff in the country.

25. The 89% of teachers in the overall pool has pedagogical education (85.2% of them with higher education, 12.7% with incomplete higher education, 2.1% with middle vocational education), whereas the salary of teachers exceeds per capita share of the Gross Domestic Product (GDP). Substantial resources are allocated for the professional training of teachers and methodological support from the state budget. Since 2005 there have been regular trainings of teachers with five year repeated cycles. At the same time, almost all programmes implemented in the field of education by different organisations also contain components of training teachers.

26. While highlighting the importance of professional improvement, it should be mentioned, that the efficiency of the accomplished trainings for teachers is not being assessed as a rule and their results are not essentially affecting the professional career progress of teachers. According to the Law on General Education of the Republic of Armenia, the order of qualification attestation of teachers will be introduced from 2011 which is meant to regulate the trainings of teachers and take into account the results of such trainings in the qualification attestation.

27. **In conditions of a comparatively small demand for teachers, the number of prepared pedagogues has grown, whereas there is a visible trend of decrease of the number of school children in recent years.** Six state institutions of higher education in Armenia are training specialists with pedagogical qualification. The 27 of total 81 middle vocational institutions are providing pedagogical qualification. Every year around 5,000 students enter higher education institutions and around 1,000 enter middle vocational educational institutions (MVEI) offering pedagogical qualifications. The total number of students enrolled in the higher education institutions with the profession of pedagogical sciences makes 29.4%, and the corresponding number of students in the middle vocational education system makes 10.8% (Source: The Social Situation of the Republic of Armenia, 2008).

28. At the same time **the quality of education in pedagogical universities is low**, which is due to a series of factors. First of all the students that apply to pedagogical departments as a rule have comparatively poor academic achievements, the universities are not equipped by modern teaching resources, the reforms in the field of higher education are introduced slowly in these institutions. One of the key components of the second loan programme entitled "*Education Quality and Relevance*" aims at providing solutions to the outstanding problems in training the teachers.

2.2.3. Programme-methodology Provision and Training-material Base

29. In terms of improving the quality of education services the training-methodological base of general schools needs essential upgrading.

30. In the first phase of reforms in the general education system the curricula were reviewed, textbooks were published and the process of procurement of textbooks by students was regulated. A "Textbook Revolving Fund" was established and a circulating system of continuous supply of textbooks was introduced. These measures have mainly solved the problem of supplying textbooks to each school student. The quality of content and print of textbooks and teachers' manuals also has been improved. The Textbook Revolving Fund has provided a continuous mechanism for publishing textbooks and manuals, and has cut the expenses for purchasing textbooks, which are provided freely to the poorest groups of students.

31. During the implementation of the first loan programme titled "*Education Quality and Relevance",* the state curricula of general education has been established, transfer to a twelve-year system has been done. New standards and curricula were developed for all subjects taught in the basic school, new textbooks were created for the new curricula, including as well alternative textbooks. The achievements in this sphere are obvious; however, the textbook creation process still needs improvements. In the last decade 215 new textbooks were introduced to the general schools; however the content quality of a portion of these textbooks is far from being satisfactory. The textbooks are not always written for the correct target age group, in some cases the language and style are too academic, and the participation of teachers in writing and testing the textbooks' is rare and ineffective. For further improvement of the quality of textbooks the authors and publishers should be provided with professional support in developing the writing skills and styles and teachers' participation must be enhanced.

32. The curricular academic workload of students is yet another problem. The necessity for introducing a twelve-year schooling system was stipulated by a number of prevailing problems. From the perspective of students the curricula of some disciplines were too large; the school curricula did not meet modern

requirements, the life-skill and character education components where weak, the academic workload of students was excessive, etc. The twelve-year education system was established, the new standards and curricula were developed and a number of new subjects were introduced in school curricula in order to overcome these issues. The demands imposed on students were changed requiring new qualities, knowledge, skills and abilities and new values. New subjects were introduced in order to raise the value of education among students and to meet the contemporary economic and social demands to education, in particular such subjects as Ecologic Education, ICT, Social Science, Basics of Economics, etc., were introduced. However, the academic burden of students has not been alleviated at all. As a matter of fact today, in general education and especially in high school, the need to change and redistribute the optimal curricular workload, the general education standard, the subject curricula and textbooks, the teaching and training materials continues to be an important challenge for improving the quality of general education.

33. Among the most important tasks of current general education are: introducing modern information and communication technologies in the training processes, equipping general schools with up-to-date computer facilities and providing quality Internet access.

34. The training processes are rapidly supplemented with ICT, which are integrated into the teaching process for compulsory subjects, as an innovative way of instruction. A pilot mobile Internet and computer lab has been created. Currently, in total around 1,180 schools across the country have Internet access. At present, 936 schools are integrated into the *Internet Network of Armenian Schools*, which makes 79.3% of the total number of general schools. It is planned that in the next few years all schools throughout the country will be connected to this network. All general schools of Armenia have established their electronic libraries with 19 electronic manuals; a pilot programme for distance learning was launched. The majority of schools were equipped with computers; the "Armenian Educational Platform" was created. It is planned to expand the integration of information and communication technologies in general schools by making the new technologies accessible for all schools across the country irrespective of their geographic location.

35. In 2010, the number of children per computer has been 30.2 as compared to 148.0 in 2004.

36. Despite the intensive work that has been done in this area over recent years, the satiation of education system with new information and communication technologies is still not meeting the demands of the day and Armenia with its indicators is lagging behind other countries of the region. The students and educators still lack adequate capacity and skills in using computer equipment and the available electronic means of teaching are still poor and inadequate.

37. This issue is particularly evident in newly adopted high school system, hindering the process of its establishment as an attractive and preferable system of education. It is necessary to enhance the logistic capacities of high schools, to create modern libraries (resource centres) and laboratories, to equip them with required computer equipment and literature resources.

38. The facilities and buildings of schools need reconstruction, the logistic capacities require enhancement for meeting the international standards. The significant part of general schools operating in Armenia was constructed before 1970's and therefore does not meet the modern requirements, does not have adequate hygienic sanitary operational conditions. In general education system 956 (66.4%) schools need urgent capital reconstruction, 234 schools need renovation and construction reinforcement, the buildings of 167 (11.6%) schools are conducive to accidents, whereas the buildings of 67 (4.6%) schools are not completely constructed or require additional constructions. In 209 schools there are no sports gyms, 254 schools have no assembly halls. There are some schools with no water supply, sewerage and heating facilities.

39. The absence of libraries (also electronic libraries) equipped in line with international requirements is one of the critical problems of vocational education in colleges and secondary vocational schools. The library resources of higher education institutions are obsolete and fail to meet the requirements imposed on modern libraries. The introduction of electronic libraries is essential to make the use of library resources easier and more effective. There are problems as well in creating, translating and adapting educational literature, refurbishing the educational institutions with up-to-date technical equipment, laboratories, teaching and methodological materials.

40. The curricula and vocational training plans of colleges specialising in pedagogical sciences and middle vocational education have not been reviewed and adapted to the substantial reforms ongoing in public education, in particular from the perspective of using innovative teaching methods and modern technologies in the training processes.

Figure 4. Enrolment of Students in State Higher Educational Institutions by Groups of Professions, %
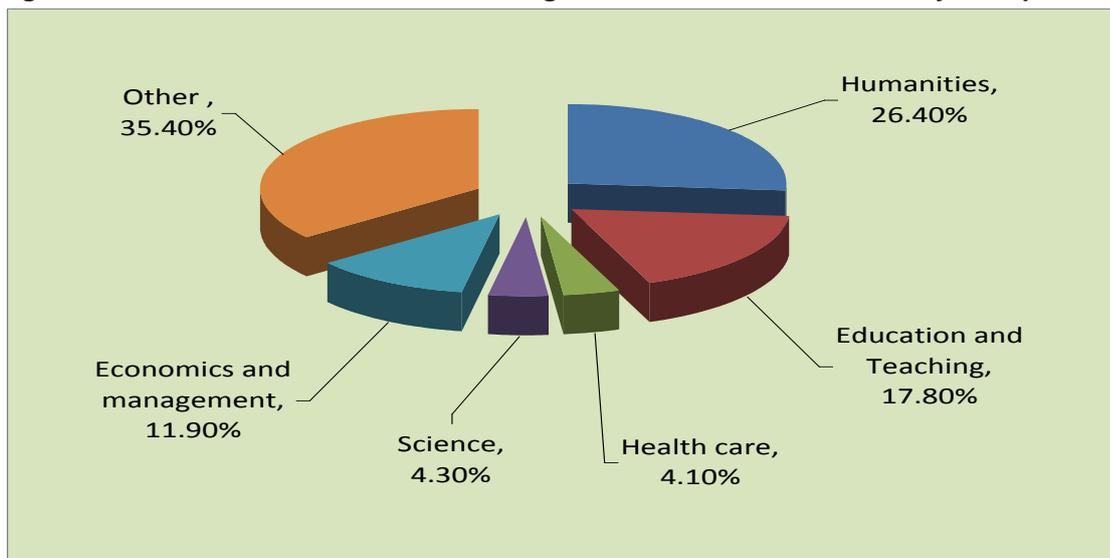
Source: The Social-Economic Situation in the Republic of Armenia, 2010, January-March.

41. The current state support to professional education is not allocated in an efficient way to insure a maximum enrolment. The specifics and cost assessment of professional training for different specialisations are not taken into account in compliance with the requirements of local and international labour markets. Introducing new mechanisms of funding of professional education will make possible to review the mechanisms of setting and distributing the quotes for professions and to enlarge the profession groups.

Figure 5. The Unemployment and Training of Specialists by Professions, %
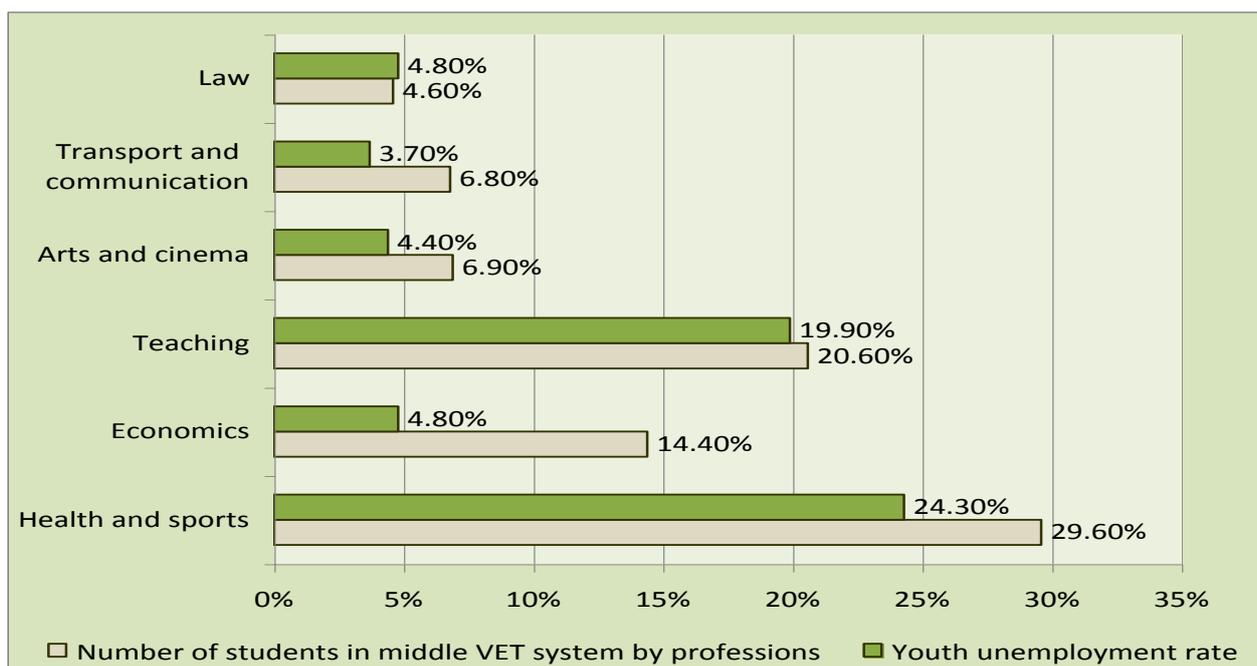
42. The 75.2% of the teaching staff employed in the institutions of higher professional education are full-time (permanent) faculty the 47.3% of which has a scientific degree and the 39.3% has an academic title. The ratio of professors to students makes 10.95 (In 2007 this indicator for member states of the Organisation for Economic Cooperation and Development (OECD) has been 16.1).

43. The 81.0% of teaching staff in the institutions of middle vocational education are full-time (permanent) faculty, the 86.9% of which has higher education, however only 0.9% of teachers in vocational institutions have scientific degree and only 0.2% has academic title. The ratio of professors to students in this sector of education is 9.24 (In 2007 the average ratio for member states of the OECD has been 15.1).

44. In the process of evolving the statehood and building a civil society the education of new generations is of paramount importance. The mission of the education system is to form an active citizen who is a carrier of national values.

45. The policy addressing the problems of children in difficult life situations continues to be a priority direction. One of the most critical problems is the social protection and integration of children without parental care and children living in harsh social conditions. In recent years much work has been done for organising the education of these children in general schools and integrating them in the society. This approach is in line with the global trends of humanisation of education and society. The system of extracurricular education has an important role in this process.

46. The key objectives of the current state policy include encouraging the participation of youth in decision-making at community, regional and national levels, developing human and institutional capacities of youth, educating spiritually and physically healthy, educated and patriotic youth. The inclusion and participation of education institutions in community actions will support the creation of such conditions by developing active partnerships between institutions and communities. Under these circumstances, the primary objective is not only conveying fundamental knowledge to learners but also forming citizens capable of making quick decisions, communicating actively and seeking lifelong learning.

47. The community initiative is aimed at establishing reciprocal links between the educational institutions and special schools for supporting the process of integrating the children with special education needs and children living in difficult social conditions, as well as including socially vulnerable families in the community development actions.

2.3. The Funding and Efficiency of Education

48. Over recent years the state budget expenditure for education has been continuously growing. In 2009 it has made 3.38% of the GDP as compared to 2.83% of 2008 (see Table 3). Despite the considerable increase of the budget allocations for education, however, the ratio of the educational expenditure to the GDP is still quite low in Armenia as compared to the countries of the OECD, CEE and CIS (the average ratio of the OECD countries has been 4.8% in 2006 and the average ratio of the CEE and CIS countries has been 4.4% in 2007). Further increase in budget allocations is expected in the coming years, however, with some decrease in respect of the GDP.

Table 3. The Specific Weight of State Expenditure in the GDP for General and Professional Education Programmes in 2006-2009

	2006	2007	2008	2009
Total expenditure for education	2.51	2.84	2.83	3.38
Including:				
General education programmes	2.11	2.47	2.38	2.86
Professional education programmes	0.30	0.29	0.37	0.41

Source: Medium-Term Expenditure Framework for 2011-2013

49. The main part of state allocations for education, around 84.7% of the total amount, has been assigned to the general education in 2009, and the 12.2% has been allocated to the professional education programmes. No changes are expected in this proportion in the coming years.

Figure 6. State expenditure for education in 2009-2013, by sectors (%)
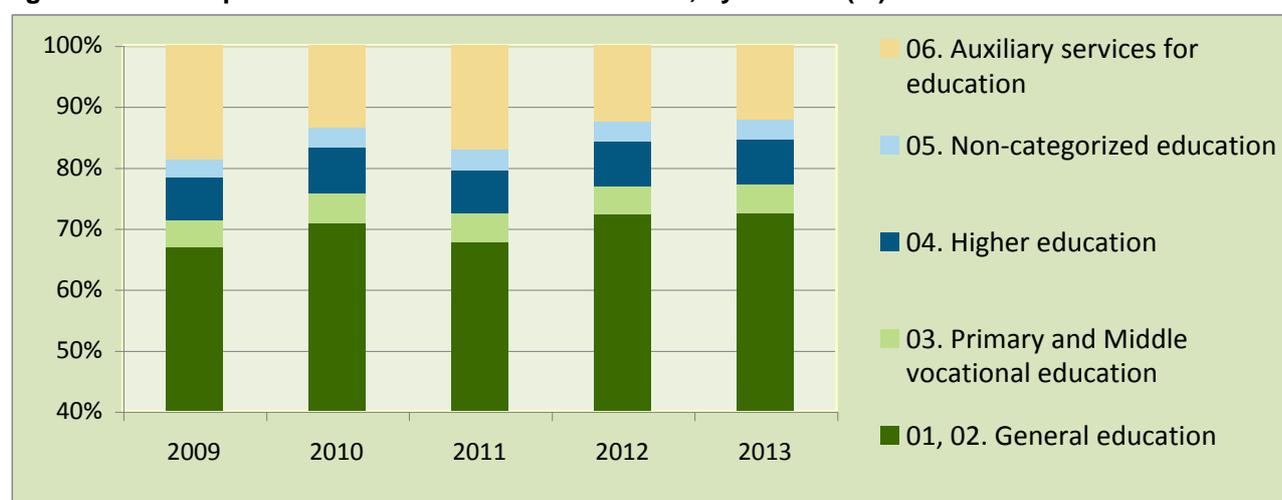
Source: Medium-Term Expenditure Framework for 2011-2013

50. Since 2006 the programme budgeting has been introduced in the field of education. The education programmes are organised in six groups, five of which are programmes of educational services at various levels. The sixth group titled "Auxiliary services provided to education" includes versatile programmes, which can be tentatively organised by the following categories: 1) assistance programmes for learners, teachers and education institutions; 2) republican (nationwide) events (arrangements); 3) assistance programmes to the Armenian Diaspora; 4) capital repair or renovation programmes; 5) development programmes. The latter comprise around 25% of this group expenditure or the 3% of the total budget for education, the biggest part of which comes from the loan programme of the World Bank titled "Quality Education and Relevance". At the same time it should be mentioned that the development policies are not always reflected in the budget of separate programmes and the total means allocated for the development of the education system are actually much bigger.

51. **An important precondition for the development of the education system is the raise of efficiency of the system.** Despite the scarcity of resources some efficiency indicators of the Armenian education system are comparable to the similar indicators of some developed countries. Due to the reforms in the system the "student to teacher workload" and "student to non-teacher workload" ratios in 2008 and 2009 has been raised correspondingly to 14.5 and 24.1 as compared to 14.0 and 23.2 in 2007. The indicator "student to teacher workload" depends mainly on the average density of classes, as far as the teacher workload and the number of academic hours are stable indicators. In 2008 the average class density indicators for the state general schools has been 20.95 (according to the data provided by the Education Management Information System the average density of classes in the state general schools has been 18 students), which is even lower than the same indicators reported by the OECD countries in 2007 (21.4 for the elementary school and 23.9 for the basic school).

52. However these indicators do not accurately reflect the real situation as they are calculated for the entire secondary school, as far as the standard class density and the compulsory number of hours imposed by the curricula are different on different levels. Taking into account the fact that these indicators usually appear in international publications with certain differentiations for primary and basic schools, therefore it is advisable to separate them in Armenia as well.

53. According to the efficiency indicators of the education system there are substantial differences between the regions (marzes) (see Table 4). The marzes of Syunik, Vayots Dzor and Aragatsotn are the most vulnerable, which is caused by the large number of small-size schools in these regions. Thus, in these marzes the average expenditure per student as compared to other marzes is much higher (see Figure 7). In order to provide equal opportunities for development in marzes it is necessary to develop equalising targeted policies.

54. Therefore putting in place an efficient system of indicators is one of the main problems and preconditions for increasing the efficiency of education system, which will enable to work out policies based on facts.

Table 4. Specific indicators for general schools by marzes and Yerevan city for academic year 2008-2009

	Average number of students per school	Average number of students per class	Number of classes per school, in units	Number of students per teacher, persons	Number of teachers per school, persons
Yerevan	458.6	21.3	21.5	11.3	40.5
Aragatsotn	156.5	7.9	19.9	6.7	23.4
Ararat	314.6	19.4	16.2	10.8	29.1
Armavir	305.1	22.2	13.7	9.9	30.8
Gegharkunik	266.7	23.8	11.2	9.1	29.3
Lori	201.8	14.7	13.8	8.4	24.1
Kotayk	324.4	16.3	19.9	10.3	31.6
Shirak	204.1	11.2	18.3	8.7	23.5
Syunik	139.6	16.6	8.4	7.0	20.1
Vayots Dzor	145.7	16.3	9.0	7.1	20.4
Tavush	208.8	22.0	9.5	8.2	25.6
Total in RA	**269.7**	**17.1**	**15.8**	**9.5**	**28.5**

Source: Social Situation of the Republic of Armenia in 2008.

55. The enhancement of management and financial autonomy of educational institutions is one of the main tasks of the professional education system.

56. In recent years, the public expenditure for education has substantially increased reaching 3.4% of the GDP in 2009 as competed to 2.0% in 2002. However, this is still a minor indicator as compared to the average indicator reported by the OECD countries and even the countries with a middle level of income. The low level of public expenditure is partially compensated by a comparatively high level of private expenditure for education (approximately 1.9% of the GDP), which contributes to the increase of total expenditure for education bringing the indicator up to 4.8% of the GDP as compared to 5.7% in the OECD countries (5.0% public and 0.7% private). Such comparatively low expenditure limits the capacity of the state for improving the quality and accessibility of education at all levels. Around 7% of public allocations for education have been designated to funding the programmes of higher professional education (as compared to 20% in the OECD countries).

Figure 7. Number of pupils of general schools and funding per pupil by marzes
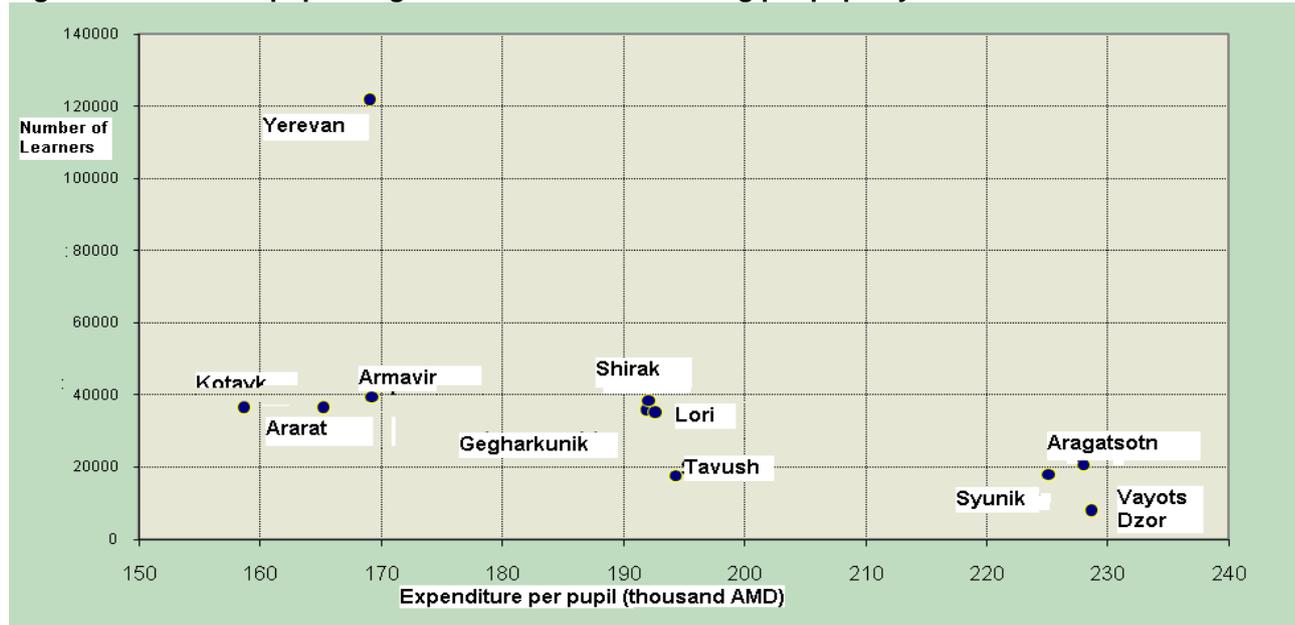

Source: RA NSS, the Social-Economic Situation in the Republic of Armenia in 2010; Budget of the Armenian Education System for 2009.

57. Approximately 71.6% of public expenditure for professional programmes goes to higher education and 28.4% - to middle vocational education.

58. The public funding of higher educational institutions makes 21% of their income. The tuition fees are rather high in the state institutions of higher education and can reach approximately 20% of the revenue per capita. The main burden of paying the tuition fees falls on the parents of students, which creates additional financial difficulties for students and their families during the years of education and in its turn limits the principles of accessibility and equal opportunities for higher education.

59. The number of students enrolled in middle vocational education system with state subsidies has been 25.3% in 2006 as compared to 40.1% in 1998. The lowest level of public funding allocated to this area has been 19.9% in 2003. The number of students enrolled in MVEIs with state subsidies in the academic year 2009-2010 has been 29.1%. There is a year-by-year positive trend of increasing public funding for the middle vocational education system, which is stipulated by pending reforms that are targeted at reducing the level of poverty (see Diagram 8). The number of students enrolled in paid education system has remained almost unchanged.

Figure 8. Number of students enrolled in the state middle vocational institutions with state subsidies as a percentage of total number of students
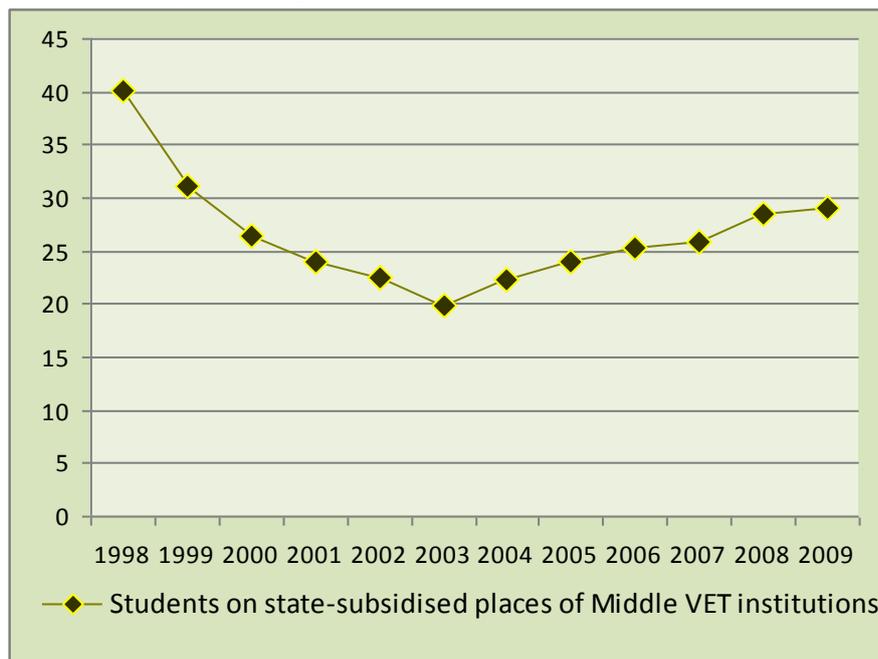

Source: Social Situation of the Republic of Armenia, 1999-2009.

60. Approximately 39.6% of public expenditure for professional educational programmes goes to primary (craftsman) and middle vocational education, while 60.4% goes to higher education.

61. There are 23 state institutions of higher education with 12 branches in the Republic of Armenia. There are approximately 92 thousand students enrolled in the state system, and the 21% of these students is subsidised by the state budget from the system of student benefits based on the scores earned at the entry exams and academic progress made during the school studies. Thus, the main part of students pays for education. The 97.6% of students enrolled by state subsidies as well receive scholarships. There are 81 state educational institutions operating in the system of middle vocational education. The number of students has been 28,368 in 2009 (see Figure 9).

Figure 9. Number of students in higher and middle vocational state institutions per 10,000 population
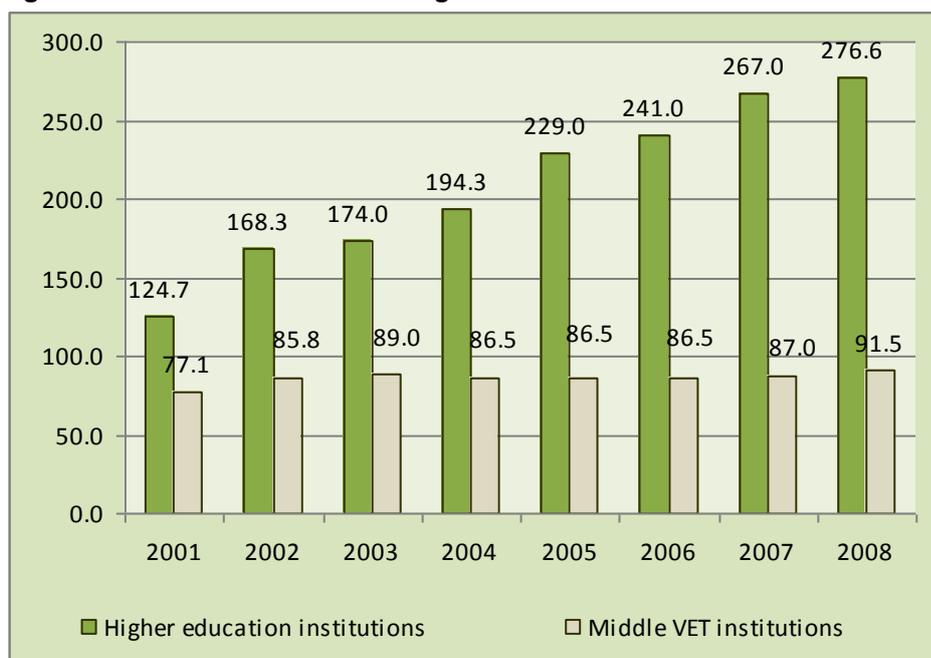
Source: Statistic Yearbook of Armenia, 2009

62. In 2009, the public expenditure per higher education student who has been enrolled with state-subsidy has been for 2.12 times more than the state expenditure per one pupil in general education. However, it does

not have a negative impact on the GER for institutions of higher education (in 2009, 114.6 thousand students were enrolled in higher education institutions as compared to 105.8 thousand in 2006).

63. Average public expenditure per student enrolled in higher education institution with state subsidy has in average amounted to 256,600 AMD without scholarships. This indicator in the MVEIs makes 258,300 AMD. Average annual expenditure per student amounts approximately 700.00 USD, whereas in the OECD countries it is 8,415.00 USD and 7,617.00 USD respectively.

64. Students with high academic progress receive as well state scholarship (around 5,000 AMD per month) which does not play any significant role in making education more accessible or improving the living conditions of individual students. However, the consolidated amount of student scholarships makes a substantial part of public expenditure on professional educational programmes.

2.4. The Management of Education

65. A number of reforms have been implemented in the area of public management and, in particular, the education management which have increased the autonomy and responsibility of educational institutions, expanded the participation of civil society and created favourable conditions for an effective dialogue between the education system and the business community. The operation of management bodies has become more transparent. However, there are still a lot of problems on the way of transition to an efficient management system.

66. There is no targeted training for the education management specialists, and the individual capacity building programmes have failed to improve the situation in any substantial way. In particular there is an essential lack of capacities in the areas of programme management, strategic planning, monitoring and evaluation, in the sphere of cooperation with donors. The programme budgeting has been introduced in the field of education since 2006, however, it is still making a very small portion of the actual activities of the Ministry. In many cases the specialised departments do not coordinate the programmes that are being implemented in their areas. There is no clear-cut reporting system, and the target indicators for programmes are as a rule not defined yet.

67. The absence of mechanisms for obtaining reliable, relevant and comprehensive data hinders the process of fact-based decision-making. The management information system that is currently used within the Ministry covers only the area of general education, and the data acquired through this system are not coherent in many cases and sometimes even contradict to data received from other sources. At present, actions are taken in order to expand the education management information system through including all levels of education, to integrate all information resources to the level of customised data, to improve the availability of information resources for various groups of stakeholders.

68. Another important task in the field of education is the coordination and harmonisation of various programmes accomplished by different organisations.

69. There has been a considerable progress towards expanding the participatory mechanism of education management: a Ministerial Board has been established, incorporating representatives from non-governmental organisations and educational institutions; a National Council for vocational education and training development has been formed, incorporating representatives from related ministries and employer organisations. All educational institutions have been reorganised into Non-commercial state organisations and are managed by participatory boards.

2.5. Summary

70. In summary: the most highlighted current problems of education are as follows:

1) The enrolment rate of children in preschool educational is low; there are no preschool education services in many communities;

2) The system of registration and recovery of children that have dropped out of schools is inadequate;

3) The general schools have limited capacities for offering education services to all children including those who have special education needs;

4) Professional education, especially higher education is not accessible for socially vulnerable groups;

5) The internal and external systems and mechanisms for quality evaluation of the professional education are not established yet;

6) The teaching staff does not sufficiently possess and implement modern teaching methods and techniques, the efficiency of training and retraining of the teaching staff is low, there is no effective system of professional career progress of educators;

7) Theoretical training prevails in the education curricula and the graduates do not receive sufficient practical skills for life and professional activity; there is lack of efficient professional orientation;

8) The dialogue between different levels of education, as well as between education and economy is weak, the mechanisms of social partnership are inadequate;

9) The education curricula are still not fully harmonised with the international criteria, the system of education fails so far to respond effectively to the rapid developments of the society and economy;

10) The quality of textbooks needs content improvement;

11) The accessibility and application of modern information and communication technologies in the teaching processes is insufficient; there is deficit of electronic teaching materials;

12) The training-material base of many educational institutions fail to meet modern requirements;

13) The education funding mechanisms and their efficient implementation need improvement;

14) There is need for developing managerial skills and efficient management mechanisms at all levels of education management.

3. THE NATIONAL CONTEXT OF EDUCATION DEVELOPMENT

71. Education is valued highly in Armenia as an essential instrument for sustainable development, for preserving and enhancing the reproduction of valuable human resources. The top priority of human development policy consists in ensuring progressive development of education through raising its quality and accessibility.

72. The perspectives of education development in Armenia must be viewed in the context of country's overall development and the framework of the following goals and objectives of the national security by ensuring the implementation of state policy principles in the field of education:

1) Reinforcement of sovereignty and development of civil society;

2) Overcoming poverty and ensuring prosperity;

3) Ensuring sustainable economic development and competitiveness;

4) Preservation of national identity;

5) International and regional cooperation.

73. **Reinforcement of sovereignty and development of civil society:** Armenia is passing a hard and complex way of transition towards the establishment of a robust and mature sovereign state and formation of the civil society. The education of new generations has a paramount role in this process. The ultimate task of the system of education is to educate active citizens who will be the carriers of national values in combination with progressive culture of civil society.

74. **Overcoming poverty and ensuring prosperity:** On the road to the establishment of robust and mature sovereignty Armenia is facing a number of social problems in ensuring sustainable prosperity of its citizens. Overcoming poverty is a priority task, and education is considered a top priority in this strategic plan. Taking into account the trends of economic development of Armenia the accessibility of high quality professional education becomes an important priority for mitigating the social and economic territorial discrepancies in development of marzes through extending the opportunities for receiving high quality professional education.

75. **Ensuring sustainable economic development and competitiveness:** The education system of Armenia is facing two main challenges on the way of ensuring competitiveness. The system of education so far does not play an essential role in the national economy, whereas without radical reforms of education system it will be impossible to ensure development sustainability and shape knowledge-based economy and society. The availability of high-quality human resources is a major condition for modern economic development, and without adequate human resources it will be impossible to ensure long-term sustainable economic development. The system of education must guarantee and implement the preparation of high quality human resources with intellectual and creative capacities, internationally competitive specialists in science and modern technologies. Long-term sustainable economic growth as well as the level of modernisation and institutional capacities of the country are largely depending on the successful implementation of reforms in the sphere of education.

76. On the other hand the education itself can become one of Armenia's competitive advantages. Being located in the crossroad of cultures and civilisations, Armenia and Armenians have historically acquired important characteristics and functions that have not only preserved their actuality till today but can become a major stimulus for the development of our state and society by securing our unique place and role in the constantly changing world.

77. The education system of Armenia can become rather attractive for neighbouring countries, by adopting the European standards of education and securing high quality, both in the role of a provider of educational services, and in the role of an environment for perspective investments in education. Some of our neighbouring countries also share the same ambition by declaring the policy of European integration and

taking active steps towards developing their educational systems in line with the European standards. Acquiring competitive advantage in these developments, Armenia must adopt a policy of rapid implementation of reforms especially in the area of professional education.

78. **International and regional cooperation:** Being located in the intersection of various regional geopolitical interests and forces, Armenia has adopted the policy of active international involvement. From one side this means active participation of education in global and regional scientific and educational processes; and from the other side it calls the education system to enhance the potential of such involvement by providing means for overcoming language and intercultural barriers of communication.

79. **Preservation of national identity.** Preservation of national identity is one of the crucial issues faced by Armenia. With a Diaspora spread all over the globe, Armenia endeavours to involve the potentials of its national Diaspora and simultaneously takes a liability to assist it in resisting to assimilation and loss of language and cultural identity. In this context, the educational system of the Republic of Armenia is bound to support the activities of educational centres of the Armenian Diaspora in order to ensure efficient cooperation in the field of science and education thereby creating conditions for uniting the globally dispersed Armenian potential and using it for solving targeted tasks.

4. GOALS AND OBJECTIVES OF EDUCATION DEVELOPMENT

80. Education development should pursue the vision of education **as the key competitive advantage of Armenia.** From this perspective the strategic goal of the educational system at the present stage is to accept the contemporary challenges and achieve such results of progress and problem solution that will restore the former rating and prestige of education and will enhance Armenia's reputation as a scientific and educational environment.

81. By 2015 Armenia's development should be hallmarked by the goals of the Millennium Declaration and global movement "Education for All", as well as the strategic principles of Bologna Declaration and Education for Sustainable Development adopted by the United Nations Economic Commission for Europe. At the same time the developments in educational system should be aimed at the improvement of education sector performance indicators within the Global Competitiveness Index in education, thus fostering the improvement of overall competitiveness of Armenia.

82. In order to achieve the strategic goal of education development, the following objectives should be achieved by 2015:

1) Improve the accessibility of education at all levels; create equal opportunities for everyone to receive education of the highest possible quality consistent with his/her preferences and capabilities. In particular, by 2015:

a) Ensure a 10% increase of enrolment of children, especially from poor families, in preschool programmes as compared to the base of 2010;

b) Achieve a 99% gross enrolment rate in elementary and middle schools;

c) Enhance the opportunities of school age children, and especially the children with special education needs, children from ethnic minorities and other vulnerable groups to receive a high quality basic education by creating friendly environment for inclusive education in every general school;

d) Achieve a 95% gross enrolment in high school, including in the primary vocational programmes;

e) Achieve a 10% raise of enrolment rate in professional education programmes, especially among young people from vulnerable groups.

2) Improve the quality of education bringing it in line with the international standards, ensuring the satisfaction of the society and business community with the quality of provided educational services. In particular, by 2015:

a) Ensure 8% increase in TIMSS International Assessments rate as compared to 2011;

b) Ensure 99% of academic progress among the graduates of basic and secondary schools;

c) Conduct qualification attestation of 95% of teachers of general schools;

d) Improve the training-material base of the general schools and provide all schools with Internet access;

e) Provide mobility of 20% of students and lecturers;

f) Ensure compatibility of the national qualifications with the European Qualifications Framework (EQF);

g) Evaluate and accredit 10 higher and 10 middle vocational education institutions in accordance with the internal and external quality assurance standards.

3) Provide a continuous growth and effective implementation mechanisms for the funds coming from the state budget. In particular, by 2015:

a) Increase the level of education funds from the state budget up to 4% of the GDP;

b) Introduce financing and efficiency assessment instruments based on the outcome indicators of education.

5. STRATEGIC APPROACHES

83. The achievement of the priority goals of the Programme requires adopting such strategic approaches which will provide the maximum purposefulness and effectiveness of the reforms. Firstly, taking into account the scarcity of resources it is necessary to choose such strategies which allow to achieve maximum results with relatively small investments. Secondly, it is necessary to prioritise those results which are both essential and accessible within a relatively short period of time. Thirdly, create favourable environment for developments by introducing necessary rules and development guidelines which will also encourage the initiative and of individuals and organisations and individuals and will promote the formation of potential for achievements.

84. The above statements have brought to the choice of the following strategic approaches:

1) Create an environment that is encouraging the initiative and innovation;

2) Implement a differentiated approach of distributing the resources depending on the outcome indicators;

3) Identify, build and develop the centres of excellence and connect them to create educational networks;

4) Foster the cooperation and participation in all sectors of education.

85. **Encouraging the initiatives and innovations:** The achieving of programme goals largely depends on the active involvement and contributions of all the links and participants of the system. Therefore, first of all it is necessary to create a favourable environment for active participation, encourage and support the willingness of creative individuals, groups and organisations to participate and contribute in the educational reforms and progress. Efficiently defined rules and their consistent application can bring to productive initiatives the collective outcome of which will be one of the important factors of progress.

86. Such approach requires from the education governing bodies to formulate certain development guidelines and priorities, create atmosphere of trust and healthy competition and show willingness to cooperate so that every initiative would receive proper attention.

87. Such strategy will allow both to expand the involvement of educational system representatives and get the support of the civil society and the private sector

88. **Differentiated allocation of resources based on outcome indicators.** The State has a liability to provide its citizens with access to quality education through creating equal opportunities and building capacities of educational institutions. An important precondition for this is the efficient and fair allocation of resources. While prioritising the principle of equality along with the "based on needs" principle of resource allocation, the maximum opportunities will be given to those who would show the best achievements and results.

89. Such strategy assumes to:

1) Introduce a system of objective indicators of outcome and efficiency for the educational institutions (including as well their employees);

2) Improve the accountability system and operation transparency of educational institutions;

3) Introduce objective and participatory mechanisms of evaluation which will take into account the assessments of different groups of beneficiaries;

4) Introduce funding mechanisms of educational institutions in line with the objective indicators of their operation;

5) Improve the efficiency of control mechanisms.

90. **Identify, build, develop and connect centres of excellence.** In order to accelerate the reforms and raise their effectiveness, it is necessary to implement the approach of developing the educational system through centres of excellence. Such approach incorporates both implementation of reforms and identification and development of model centres. These centres will assume the role of leading and reform promoting institutions. In order to ensure the balanced development of educational system, the policy of promoting the centres of excellence will be pursued in all regions. In order to maximise the impact of such centres it will be necessary to establish internal and external networks with similar institution within and outside the country. Centres of excellence will be encouraged and commissioned to contribute towards the creation of new centres.

91. Such strategy assumes to:

1) Identify the links that possess the strongest potential for the development of educational system, supporting their development and the establishment of new ones;

2) Ensure that over time such links would develop into full-fledged structures, i.e. "Centres of Excellence";

3) Promote the networking between these links in order to enhance their potential;

4) Ensure that the Centres of Excellence become regional resource centres with a mission to support the development of related educational institutions.

92. **Cooperation and participation.** At the present stage of public development, "networking" is among the most important trends. In fact, this development happens on both international and national levels. Joining economic, social, professional and other international networks is essential for being in touch with the constantly replenished and updated global database of knowledge, for rapidly adapting the available knowledge and experience available and promoting the local knowledge and innovation to the international level. Local networks make possible the common use of resources, ensure rapid exchange of experience and constructive dialogue between various systems.

93. At all levels of education the cooperation will be promoted both inside and outside the system. Programmes that are either initiated as outcomes of cooperation or are aimed at encouraging and promoting such cooperation will be prioritised. Such approaches will be adopted which create favourably environment for the educational system, including individuals, groups and institutions to join international networks, which will in its turn enhance the education rating and overall competitiveness of Armenia as a further stimulus to higher quality of education. In this respect, the development of individual and institutional potential for cooperation and participation will be one of the key objectives of education development.

94. At the same time the civil society, business community and any representative of educational system will get ample opportunities to participate in education management and programme implementation. To this end, the Communication Strategy of the Ministry of Education and Science of the Republic of Armenia will be developed and implemented to ensure transparency of the system, constructive public dialogue and increased participation of civil society in decision making as well as to build confidence of the society at large to the ongoing programmes.

6. PRIORITIES OF EDUCATION DEVELOPMENT

95. The implementation of the key objectives of education development demands a significant raise of the efficiency of the education management system and the professional potential of governing units and teachers, along with updating the educational content in line with current requirements. At the same time, another key condition for success lies in promoting the targeted use of resources and identifying and mobilising new resources.

96. In order to make the progress of education more targeted and efficient, further actions will be taken in line with priority directions listed below, along with ensuring the gradual development and enhancement of achievements in the education system.

6.1. Investment policy promoting the programmes of exceptional achievements

97. With the purpose of promoting the year-by-year accelerating growth of achievements in providing high quality education and guided by the differentiated distribution strategy of resources fostering progressive development, it is necessary to allocate a part of resources to programmes of exceptional achievements. Those groups of learners and educators as well as institutions that are capable of improving Armenia's educational rating should get proper support. The fair and targeted distribution of such resources, programme achievements and their publicity will not only raise the confidence in educational system among the local and international community but will also create a demand at local, regional and global levels.

98. In particular, some funds from the annual state allocations are planned for initiatives of new exceptional educational achievements on a competitive basis. Proposals for such programmes may be submitted by educational institutions, individual educators and their unions, and other organisations related to education. The funds will be distributed by an independent expert commission in line with clear conditions and standards of programme selection, qualification and competition procedures worked out in advance.

6.2. Building capacities in leading the reforms

99. In line with the goals and directions of this Programme, the responsible entity for leading and implementing the educational reforms is the Ministry of Education and Science of the Republic of Armenia together with the bodies of regional governance. The pace of development in education and the successful implementation of reforms largely depend on the institutional and human capacity of management units. This includes optimal structural and functional organisation of management, corresponding human resources, effective mechanisms of decision-making based on objective data. The empowerment of this capacity building will be one of the most important components of the agenda of educational reforms. In particular:

1) The human resources and institutional capacities of the Ministry of Education and Science of the Republic of Armenia will be studied and assessed and on the basis of observations the functions of the Ministry and its subordinate organisations will be updated and optimised with the purpose of building more capacities and clarifying the functions of separate units;

2) In order to develop the strategic management potential of the Ministry, the activities of relevant departments responsible for various aspects of education will be coordinated in line with the project management principles. The employees of departments will receive special trainings in project management, financial analysis, fund raising and coordinating activities with donors;

3) A monitoring plan and mechanisms for educational projects, as well as project outcome indicators, criteria and targets will be worked out. The "Education Management Information System" of the Ministry will be refined and updated to supply reliable data for decision and policy making;

4) Researches on crucial issues of education will be funded as a basis for data-driven policy making;

5) The participation of stakeholder ministries, business community, civil society and donor organisations in planning, implementing, monitoring and evaluating development programmes will be enhanced.

6.3. Enhancing the Accountability and Transparency

100. Both the Ministry and the educational institutions will adopt transparent and accountable operation practices. The accountability will be ensured mostly by making the reliable and valid data on learners, educational institutions and government bodies available to the general public and beneficiaries. Specifically:

1) Annual public reports on educational progress and problems will be published to cover relevant information for institutions, pupils, students, their parents and employers;

2) Public relations capacity of the Ministry of Education and Science of the Republic of Armenia will be enhanced;

3) Public and international expert surveys will be conducted regularly with the purpose of assessing the trust of the public in the educational system. Surveys will seek opinions of different population groups in Armenia, the Diaspora and international education experts. Such surveys will make possible revealing the opinion of respondents on the quality of education in Armenia, the educational competitiveness of Armenia at regional and international levels, the educational progress and future expectations of education. The survey results will be published;

4) Armenia will continue to participate in international assessments: Trends in International Mathematics and Science Study (TIMSS) as well as other international assessment programmes e.g. Progress in International Reading Literacy Study (PIRLS), Programme for International Student Assessment (PISA). The results of Armenia's participation along with the comparative analysis of previous results from other countries and Armenia itself will be published;

5) The education system will assume an active role in fighting against corruption; based on the Anti-Corruption Strategy of the Republic of Armenia, relevant programmes will be carried out in line with features of the entire system and individual educational institutions.

6.4. Improving the education content and standards

101. The content reforms will be aimed at making education compliant with modern economic, scientific and social requirements which will support the effective implementation of the main goals. Specifically:

1) Priority will be given to communication skills in native and foreign languages, application of modern information communication technologies, skills of cooperation, research and creative competencies. Comprehensive concepts for improving the efficiency of teaching native and foreign languages, Armenian studies, mathematics and natural sciences, information and communication technologies will be developed;

2) In the course of teaching and learning priority will be given to the following directions: information and communication technologies, both for teachers and learners capacity and skills for using computer equipment. In addition, the educational electronic means will be developed which will promote as well the development of distance learning;

3) The development and implementation of result-based standards both for the general and professional education will continue in line with modern scientific pedagogical approaches;

4) In higher education the opportunities of learning specific subjects in foreign languages and use of foreign language professional literature will be expanded;

5) In order to improve the content quality of textbooks, professional assistance will be provided to authors and publishers; guidelines for writing textbooks will be developed in line with the best international practices;

6) The community involvement in general schools and other educational institutions as well as the learners' involvement in resolving community issues will be encouraged;

7) Interactions between educational and scientific institutions will be encouraged. The scope of scientific research by learners and their involvement in scientific research within higher educational institutions will be encouraged and supported;

8) Effective mechanisms for cooperation between educational institutions and economic entities as well as public dialogue will be developed for making the educational programmes and professional trainings more consistent with the needs of the primary branches of economy;

9) Along with the promotion of academic freedom in the educational institutions, an education quality assessment system will be developed and launched. In the sphere of general education, there will be a full transition to the objective grading methods and common final exams.

6.5. Teaching Staff Capacity Building

102. The success and efficiency of educational reforms and development programmes are largely depending on the professional backgrounds of teachers and academic staff, their inclusion and readiness in leading and implementing the outstanding educational achievements.

103. Concurrently with updating and improving the pedagogical education and system of professional support there will be created as well favourable conditions for identifying and encouraging progressive and creative teachers and promoting their active involvement in the development and reform programmes. The pedagogical human resource policy will include the following arrangements:

1) Complex educational reforms in pedagogical and continuous training system will be introduced and enacted to ensure the modernisation and optimisation of professional pedagogical education;

2) The legal framework regulating the functions and activities of educators and the system of training teachers will be explicitly elaborated and specified;

3) Thanks to the implementation of effective mechanism of regular trainings and attestation of teachers a five-year training cycle of skill and qualification improvement will be ensured, depending on the specific requirements of each discipline;

4) The scope of exchange programmes for teachers and academic staff with leading foreign universities will be extended in order to increase their targeted impact on the activities of educational institutions;

5) Database on Armenian scientists actively involved in foreign academic circles will be compiled; the Armenian universities will be given an opportunity to establish close contacts with such scientists;

6) Relevant programmes will continue to provide general schools with qualified staff, assign teachers to remote, mountainous and frontier regions, arrange intentional training of educators. At the same time the employment mechanisms of teachers will be specified, made public and transparent in line with the principles of employing educators on competitive basis;

7) Measures will be taken for increasing the attractiveness and public reputation of teacher's profession. Specifically:

a) differentiated approach based on effective activities will be introduced following the policy of raising teachers' wages. To that end, educators will pass regular qualification attestation based on objective indicators of performance,

b) result-based criteria and encouraging mechanisms will be developed to identify the best teachers.

6.6. System optimisation and institutional reforms

104. System structural reforms will be among the directions of efficient use of resources. Along with gradual transition from institution funding policy to programme funding, the types and territorial distribution principles of educational institutions will be specified to ensure their fullest possible compliance with the needs of regional socio-economic development and educational needs of the society. Such educational institutions will be created and developed and, with their conditions and quality of educational services, will be comparable with similar foreign institutions. Specifically:

1) Complex reconstruction strategy of middle vocational, higher and post-graduate education will be mapped out and implemented with the purpose of creating high-quality and efficient demand-responding educational institutions;

2) The upper grades of general schools will be consolidated into an independent network of high schools providing in-depth stream training to ensure the full readiness of learners for further professional education and activity. Concurrently a programme will be developed for enhancing the capacities and quality of high schools within the structure of the general school;

3) Programmes on extensive renovation and large-scale construction of educational facilities will be continued, including the reconstruction of the heating systems, refurbishing the training laboratories and computer classes, establishment of intranets and networks;

4) Fair competition for public and private educational institutions will be supported through expanding the opportunities of the private institutions to deliver educational services;

5) The policy of encouraging the internal optimisation of institutions and increasing the authorities for managing financial resources will be continued.

6.7. The increased participation in international networks

105. The European integration policy of the Armenian educational system and participation in Bologna Process, which is considered to be a priority in higher education reforms, are still vital factors of encouraging the international cooperation and potential of active participation in networks. While pursuing this direction the state will concurrently support the raise of competitiveness and cooperation capacity building of individual citizens, groups and institutions both at regional and international levels. Students and higher education institutions will receive greater opportunities for targeted scholarships, grants and training to promote the exchange programmes and cooperation with the best foreign universities. The exchange practices between the Armenian and foreign general schools will also be supported.

106. The Diaspora is one of the essential resources for developing Armenia's education system and establishing international relations. Scientific and educational relations with the Diaspora will be strengthened and deepened. Internationally renowned individuals from Armenian Diaspora will receive opportunities to teach in Armenian educational institutions by involving them in the development programmes of the educational system. At the same time, educational institutions of the Diaspora will continue receiving support, promoting solutions to the tasks on preserving the Armenian national identity and developing intercultural dialogue.

107. The key activities in this field will cover the following directions:

1) Creation of a database of Armenian Diaspora professionals in order to ensure effective cooperation between professionals from the Diaspora and their counterparts in Armenia;

2) Active involvement in the Bologna Process;

3) Targeted participation in the activities and programmes of professional structures from the EU, CE, CIS, UN and other international organisations along with an enhanced interuniversity cooperation with the leading foreign educational institutions in bilateral and multilateral formats;

4) Organisation of international educational conferences in Armenia and participations in such conferences hosted by other countries;

5) Technical assistance will be provided to higher education institutions and training programmes will be organised in order to raise awareness on EU-supported and other technical cooperation programmes in the area of higher education.

7. KEY PROGRAMME DIRECTIONS OF THE EDUCATION DEVELOPMENT

108. The key objectives of education development will be achieved through target programmes in line with strategic approaches and priorities which will become the logical continuation of currently pending programmes. The current programmes and reform strategies will be reviewed in line with key objectives and strategic directions.

7.1. General Education

109. Educational reforms and development programmes mostly cover the general education. Currently pending programmes are funded as from the state budget, as from other donor organisations. Such programmes mostly pertain to the general schools and the main general educational programmes and cover issues connected with the content, structural and management issues. Below are presented the key programme directions, *inter alia*, including the spheres of special education, preschool education and extra-curricular education.

1) Introduction of 12-year education system

a) Ensure the development of an academic curricula and publishing textbooks in line with new state standard of general education;

b) Develop mechanisms for monitoring and constant improvement of subject standards and programmes;

c) Introduce up-to-date multifactor forms and methods of assessing learners' knowledge, competences, skills and academic progress;

d) Improve the school graduation and universities' entrance unified examinations system;

e) Offer teacher trainings in line with recent trends.

2) Increase the use of information technologies

a) Improve provision of general education institutions with computers and software packages;

b) Expand the Internet network of Armenian schools to cover all schools in the country;

c) Improve computer literacy and teaching quality of the "Computer Science" subject;

d) Increase the use of information and communication technologies as teaching and learning media in education;

e) Develop modern e-learning resources.

3) Improve the network of high schools

a) Coordinate the stream-training in line with the preferences of learners and prepare them for professional education;

b) Create modern libraries (resource centres) with necessary equipment, printed and electronic literature;

c) Build educational and methodological complexes for various high school stream trainings;

d) Raise the professional quality of high school teaching staff and introduce Master programmes for high school teachers at teacher training educational institutions.

4) Enhance the quality, efficiency and reputation of pedagogical education

a) Make the content of pedagogical education compliant with modern requirements of general education;

b) Direct the pedagogical scientific research towards boosting the efficiency of general education reforms;

c) Encourage and increase the cooperation among teacher training institutions and schools.

5) Increase the rating of educators' occupation

a) Develop and introduce result-based criteria and mechanisms of encouraging educators;

b) Encourage the development of professional associations of educators;

c) Publicise the best practices and achievements of educators.

6) Provide schools with teaching staff

a) Create a database of teaching staff and demand for teachers;

b) Improve systems of target (intentional) admissions to teacher training institutions and sending educators to mountainous and remote border zones.

7) Improve the system of educators' professional development

a) Enhance the effectiveness of teacher training;

b) Encourage pedagogical innovations.

8) Encourage high achievements of pupils;

a) Build favourable conditions for expression of students' (groups of students) abilities;

b) Ensure the participation of students and with exceptional abilities in international contests, competitions, tests, other events and programmes.

9) Build favourable environment for development of children with exceptional abilities

a) Design concept on development of extracurricular and out-of-school education system;

b) Develop and introduce an efficient system of meeting the educational, esthetical, technical and sport preferences of students;

c) Introduce effective mechanisms for stimulating the creative, innovative and research activities of students, their teachers and schools.

10) Provide general schools with expanded education opportunities for children with special education needs

a) Ensure effective coordination of inclusive education through the network of general schools;

b) Introduce a system of methodological and material support to schools offering education to children with special needs;

c) Foster the interaction and cooperation between schools and similar foreign schools and organisations;

d) review the legal framework regulating the general education from the point of view of providing a joint policy of inclusive education.

11) Set up an effective identification and inclusion system for children with special education needs

a) Improve the standards, instruments and mechanisms for identifying children with special needs of education;

b) Improve registration of children dropping out of the educational system;

c) Enhance cooperation between the general schools and non-governmental organisations and the children's rights protection bodies.

12) Optimisation of the special schools

a) Review types, subordination and regional distribution criteria of special schools;

b) Along with expanding the network of inclusive schools, reduce the number of special schools;

c) in accordance with the special education branches provide each with one base or centre school with corresponding scientific and practical resource.

13) Ensure the quality and availability of preschool education

a) Improve the legal framework and management system regulating the preschool education;

b) Ensure the participation of the preschool teaching staff in trainings, skill improvement and attestation programmes;

c) Improve programme-methodology and training-material base for delivering the preschool training services;

d) Increase children's enrolment rate in preschool services and access to such services, particularly for children from disadvantaged families.

7.2. Professional Education

110. Professional education will be given priority in further educational developments. The current reforms of higher education are mostly aimed at the implementation of principles of the Bologna process. Reforms in the primary and middle vocational education aimed at the integration with the European education area are already in process of implementation. While continuing the current programmes, a strategy of complex renewal of the professional education will be worked out to speed up the reforms and boost their efficiency.

7.2.1. Development of primary and middle vocational education

1) Integration of primary and middle vocational educational system into the common European education area

a) Promote the integration of vocational education and training institutions into the global educational systems;

b) Bring the VET qualifications system into compliance with the European Qualifications Framework;

c) Introduce a common credit accumulation and transfer system;

d) Raise the professional awareness of specialists on the best practices and achievements of other countries;

e) Join the Copenhagen Declaration and Process;

f) Promote networking of VET institutions.

2) Ensuring effectiveness and efficiency of the VET system

a) Build an efficient system of professional orientation and counselling;

b) Encourage social partnership and dialogue;

c) Build an effective network of VET institutions;

d) Based on economy priorities of the Republic of Armenia, determine priorities of primary and middle vocational education professions and introduce an effective system of identification of demand for professionals;

e) Improve the training-material base of VET institutions;

f) Improve accountability and transparency of institutions' activities.

7.2.2. Higher and Postgraduate Education

1) Introduce a National Qualifications Framework in line with European Qualifications Framework;

2) Set up a national quality assurance system; build, strengthen and enhance its capacities;

3) Create and introduce an effective and stable system of higher education funding;

4) Provide recognition and comparability of higher education graduation certificates (diplomas);

5) Promote students mobility and attractiveness of Armenian educational system;

6) Foster interaction between higher education institutions and employers (labour market), promote learners' professional guidance and solution of employment issues.

7.2.3. Lifelong learning opportunities

1) Ensure education continuity;

2) Improve the legislation regulating adult education.

7.3. Improvement of the Management and Governance

1) Create a team leading the reforms and implement trainings in project management, financial analysis, fund-raising and donor coordination;

2) Develop plan and mechanisms for the Programme monitoring;

3) Improve and complete the education management information system;

4) Ensure the operationalisation of a consulting body formed with the representatives of stakeholder ministries, business and civil sector and main donor organisations;

5) Produce regular annual public reports on education progress and problems.

8. PROGRAMME IMPLEMENTATION, MONITORING AND EVALUATION

111. The Ministry of Education and Science of the Republic of Armenia will be responsible for the Programme implementation and coordination.

112. The Programme will be carried out through individual targeted projects which will be reflected in the medium-term expenditure frameworks and the state budget. Sub-programmes will be developed and implemented in cooperation with national, international and non-governmental organisations. The targeted programmes list will include as well the projects carried out by international and non-governmental organisations in line with the goals and objectives of the Programme.

113. The Ministry will set up and introduce an information system on targeted programmes which will reflect comprehensive data on programmes and projects implemented by national, international and non-governmental organisations.

114. The overall monitoring and evaluation of the Programme will be based on the predetermined outcome indicators within the "base year to reporting year" comparison (see Table 5). At the same time, in 2011 the comprehensive system of education indicators will be developed and approved; their methodology and the classification of educational programmes will be harmonised with the international standards.

115. From the perspective of the Programme effective monitoring and evaluation system, the key issue lies in defining data collection mechanisms. The NSS official publications, including IHLCS results and Education Management Information System will be the key sources of data. The results of inspection and license checking in educational institutions will be used as well. If necessary, relevant research will be done with involvement of international and non-governmental organisations.

116. Education development monitoring indicators will be collected and analysed by gender and regions (marzes). Annual reports on Programme monitoring indicators will be published, and Programme evaluation will cover 2 stages: intermediate (2013) and final (2015).

Table 5. System of Programme Monitoring Indicators

№	Indicator	Interrelation with other programmes	Baseline	Midterm objectives	Programme objectives	Sources
1	Gross enrolment rate in preschool education (%)	EFA 1	24.3% (2009)	5% growth	50%	Official publications of RA NSS
2	Net enrolment rate of 5-year-old children in preschool education (%)	EFA 1	60% (approximate estimation 2008)	75%	90%	Official publications of RA NSS, RA MoES
3	New preschool educational institutions	EFA 1	35 (2010)	120	180	RA MoES
4	Gross enrolment rate in basic school (%)	MDG 2.3.12 GCI 5.01	93.5% (2008)	96%	99%	Official publications of RA NSS, RA MoES
5	Gross enrolment rate in high school including primary and middle vocational education programmes (%)	PT 2.3.13 GCI 5.01	85.9% (approximate estimation 2008)	89%	95%	Official publications of RA NSS, RA MoES
6	Schools involved in inclusive education system	EFA 2	65 (2010)	90	110	RA MoES
7	Gross enrolment rate in middle vocational institutions (per 10,000 population)	EFA 3, 4 GCI 5.02 MDG 2.3.16	92,3 (2010)	3% growth as compared with the base year	10% raise as compared with the base year	Official publications of RA NSS, RA MoES
8	Enrolment rate in higher and postgraduate education institutions (per 10,000 population)	EFA 3, 4 GCI 5.02 MDG 2.3.16	352.8 (2010)	5% growth as compared with the base year	10% raise as compared with the base year	Official publications of RA NSS, RA MoES

9	Gini coefficient for enrolment, including:	**MDG 2.3.16**	2011 **Basic research**			RA MoES
9.1	*Preschool education*			5% decrease as compared with the base year	15% decrease as compared with the base year	
9.2	*High school*			5% decrease as compared with the base year	12% decrease as compared with the base year	
9.3	*Universities*			5% decrease as compared with the base year	10% decrease as compared with the base year	
10	Student/computer ratio in public secondary schools, per 1,000 students	**GCI 5.06**	**30.2** (2010)	**40**	**50**	RA MoES
11	Percentage of general schools with access to Internet,%	**GCI 5.06**	**60.4% (2010)**	**76.2%**	**100%**	RA MoES
12	Basic school graduates with good grades, %	**EFA 2 EFA 6**	92.3% (2010)	95.5%	99%	RA MoES
13	Secondary school graduates with good grades,%	**EFA 2 EFA 6**	96.8% (2010)	98%	99%	RA MoES
14	Average knowledge assessment results among students of 4th and 8th grades in Mathematics and Natural Sciences in line with TIMSS	**GCI 5.04 MDG 2.3.15**	2011 Base year	-	8% growth	TIMSS reports
15	Teachers of general schools who have passed quality attestation, %	**EFA 6 GCI 4.09**	0 (2010)	**55%**	**95%**	RA MoES
16	Satisfaction rate among parents and employers by educational services, including:					The Global Competitiveness Report
16.1	*Satisfaction rate among parents by primary education*	**EFA 2 GCI 4.09**	**3.3** (2009)	**3.7**	**4.1**	
16.2	*Satisfaction rate among employers by professional education*	**GCI 5.03**	**3.0** (2009)	**3.4**	**3.8**	
17	Accredited professional education institutions, including:	**GCI - 5.03**				RA MoES
17.1	*Universities*		**0** (2010)	**5**	**10**	
17.2	*MVEIs*		**0** (2010)	**5**	**10**	

LIST OF ABBREVIATIONS[*]

AMD	Armenian Dram
CE	Council of Europe
CEE	Central and Eastern Europe
CIS	Commonwealth of Independent States
EFA	Education for All
EQF	European Qualifications Framework
EU	European Union
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
ICT	Information and Communication Technologies
IHLCS	Integrated Household Living Conditions Survey
MDG	Millennium Development Goals
MTEF	Medium-Term Expenditure Framework
MVEI	Middle Vocational Education Institution
NSS	National Statistical Service
OECD	Organisation for Economic Cooperation and Development
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PSI	Preschool Institutions
RA	Republic of Armenia
TIMSS	Trends in International Mathematics and Science Study
UN	United Nations
USAID	United States Agency for International Development
USD	United States Dollar
VET	Vocational Education and Training

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[*] The List of Abbreviations is not a part of the Programme's official text and has been introduced by the editor.