Reforming the educational systems of the former Soviet Union

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Presenter: Erik Johansson, Swedish National Agency for Higher Education
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INTRODUCTION
This handout is meant to serve as a general overview of the changes in the higher education sector in the following twelve states of the former Soviet Union: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. The handout will focus on the reforms of educational systems of the region in general and Uzbekistan, Kazakhstan, and Belarus in particular.

INDICATORS OF REFORM
In order to study the educational reforms that have taken place in the region since independence in 1991, the following eight indicators of reform have been identified:

1. Extension of secondary education to 11-12 years
2. Commitment to the Bologna Process
3. Introduction of a 2-level Bachelor/Master degree structure
4. National entrance exams
5. Private institutions
6. Foreign institutions
7. Quality assurance system based on 3-stage licensing, attestation, and accreditation
8. Credit system

Based on these criteria, the studied educational systems fit into the following three categories: A. reformed, B. partly reformed, and C. stagnated.

Figure 1. Educational reform in the former Soviet Union – A comparison

<table>
<thead>
<tr>
<th></th>
<th>11-12 y. School</th>
<th>Bologna Process</th>
<th>Bachelor/Master</th>
<th>Nat'l Exams</th>
<th>Private HEIs</th>
<th>Foreign HEIs</th>
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<th>Credit System</th>
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</tbody>
</table>

Legend:  
X Reform introduced and fully implemented  
(X) Reform introduced, but not fully implemented
A. REFORMED EDUCATIONAL SYSTEMS

Countries: Armenia, Ukraine, and Uzbekistan

Significant for this group is that it has introduced many educational reforms in combination with a relatively high rate of implementation. To this geographically dispersed group we count Armenia, Ukraine, and Uzbekistan. These three nations have introduced reforms that have extended the duration of their primary and secondary education to 11-12 years, are committed to the Bologna Process, have fully or partially reformed their degree structures by introducing the Bachelor’s and Master’s degrees, introduced national entrance exams, and allow private and foreign institutions to operate. Additionally, Armenia and Ukraine have introduced and fully implemented a quality assurance system based on accreditation, whereas Uzbekistan has abolished the Soviet system of study load expressed in hours and replaced with a new credit system.

Example: The educational system of Uzbekistan

Extending primary and secondary education and the national entrance exam
Uzbek children begin school at age 6 or 7 and following the 1998 reform primary and secondary education in Uzbekistan was extended from 10-11 years to 11-12 years, according to the formula 4+5+3. In 2001 the first students having completed 11-12 years of primary and secondary education were admitted to universities. Postsecondary vocational schools have been renamed and are now called colleges.

Higher education usually begins at age 18-19 and high school graduates first choose which institution to attend and then write the National Entrance Exam [kirish imtikhoni] based on multiple-choice questions. (Uzbekistan was the first CIS member state to introduce a single, nationwide standardized set of exams.) Students take the aptitude test on August 1 each year and testing is organized by the State Center for Testing [Davlat Test Markazi]. In 2002 approximately 300,000 students took the test out of which 60 % gained access to higher education. Also college graduates can apply to institutions of higher education, however, not to all academic programs.

Breaking with the past – Uzbekistan’s new degree structure
There are 63 institutions of higher education in Uzbekistan and most of them are located in the cities Andizhan, Bukhara, Fergana, Nukus, Samarkand and the capital Tashkent. All institutions are run by the state and have the right to issue degrees in the state format.

Uzbekistan experimented with private institutions in the 1990s, but the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan [O‘zbekiston Respublikasi O‘liy va O‘rta Maxsus Ta’lim Vazirligi] was soon concerned about the quality of education at these institutions. For example, applicants that did not pass the entrance exams to state (public) institutions were automatically admitted to private ones instead. Against this background and allegedly due to substandard conditions, the Ministry closed all private institutions during the period 1995-1998.

Despite a new law of 2002 making it once again legal for non-state institutions to operate, there are at present no private institutions in Uzbekistan. Two foreign institutions that are not under the auspices of the Uzbek Ministry of Education have, however, been established in Tashkent: The International Westminster University...
(UK) and the Tashkent branch of the Plekhanov Russian Academy of Economics (Russia).

In contrast to other Central Asian republics, Uzbekistan has taken the reform of its degree structure one step further by abolishing the traditional Soviet Specialist degree and replacing it with a two tier system based on the Western-style Bachelor [Bakalavr diplomi] and Master degree [Magistr diplomi]. In other words, the Uzbek degree structure is less of a hybrid than that of Kazakhstan and Kyrgyzstan. Exceptions to the rule are, however, degrees in health professions (dentistry and medicine) and degrees on the doctoral level, i.e. the Candidate of Science [fanlari nomzodi] and Doctor of Science [fanlari doktori] degrees.

Uzbekistan has, furthermore, introduced a new grading and credit system. The new so-called reyting system is based on a percentage scale: 86-100 % = excellent [a'lo], 71-85 % good [yaxshi], 56-70 % satisfactory [qoniqarli] and <55 % = fail [qoniqarsiz].

In the academic year 2004/2005 Uzbekistan’s 263,000 students had 149 Bachelor and 1,200 Master degree programs to choose from. Both Uzbek and Russian are languages of instruction at the universities. Although most textbooks still are in Russian, books in Uzbek are gradually replacing them. The Uzbek language was written in Cyrillic until the mid-1990s when it was phased out and replaced by Latin script. Today most degrees issued in Uzbekistan are in Latin letters, yet there are indications that the Cyrillic alphabet is being reintroduced.

Quality assurance without accreditation

There is at present no independent Quality Assurance Agency in Uzbekistan. The Monitoring Department of the Ministry is instead responsible for the quality of higher education. Quality assurance in the Uzbek context is understood as correspondence between the quality of education of academic programs and the so-called state educational standards. State educational standards are parameters used by the Ministry to ensure quality and the activities of an institution are tested against these standards. The autonomy of the country’s institutions has been strongly curbed and the Ministry must sanction all new academic programs that are introduced. Shortcomings at the institutions can result in the suspension of their degree-granting rights.

B. PARTLY REFORMED EDUCATIONAL SYSTEMS

Countries: Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, and Russia

This second category of countries constitutes a group that has expressed willingness to reform their educational systems, yet are still struggling to let go of the Soviet past. Both the number of introduced reforms is generally lower than in the first category and the level of implementation is low.
Example: The educational system of Kazakhstan

Primary and secondary education
After 1996 the nominal length was officially extended to 12 years, thus moving from a 4+5+2 system to a 4+5+3 system. The reform has, however, not yet been implemented in all parts of the country.

Students graduating from grade 9 have the option to either to continue on to complete general secondary education or pursue vocational training at one of the following types post-secondary vocational schools:

- Vocational school [училище (Kazakh/Russian)]
- Technical school [техникум(Kazakh/Russian)]
- College [колледж (Kazakh/Russian)]

These programs are of 2-4 years of length depending on the chosen field. Colleges are new type of institutions offering specialist training. Some of them are affiliated with higher education institutions. Graduates from these schools who pursue higher education may be considered for advanced standing, thus completing e.g. 4-year academic program in only 3 years.

Admission to higher education
Admission to higher education is based both on the leaving certificate from high school [Орта білім туралы аттестат (Kazakh)/Аттестат о среднем (полном) общем образовании (Russian)] and (as of 2004) results from the so-called Unified National Testing Exam, UNT [Бүтін ұлттық тест тапсыру (ҰБТ) (Kazakh)/Единое национальное тестирование (ЕНТ) (Russian)]— a single, nationwide standardized set of exams. Thus, in addition to the common Certificate of (Complete) Secondary Education school leavers receive the Certificate of Results from the Unified National Testing Exam. All school leavers planning to continue on to higher education must pass the UNT and based on the two documents school graduates are able to apply to several different universities all over the Republic. The UNT includes 120 questions and take three hours to complete. The UNT covers the three mandatory subjects Kazakh/Russian, mathematics, History of Kazakhstan and one optional subject.

An expanding private sector
There are the following types of higher education institutions in the Republic of Kazakhstan:

- University [университет (Kazakh/Russian)]
- Academy [академия (Kazakh/Russian)]
- Institute [институт (Kazakh/Russian)]
- Conservatory [консерватория (Kazakh/Russian)]
- Higher school [жоғары мектеп (Kazakh)/высшая школа (Russian)]
- Higher vocational schools [жоғары училище (Kazakh)/вышее училище (Russian)]
Since the collapse of the Soviet Union both the number of students and institutions of higher education in Kazakhstan has increased dramatically. In 2003 the country had 657,000 students; 359,000 (55%) in state and 298,000 (45%) in non-state institutions, respectively. And in the period 1992-2004 the number of (predominately private) institutions grew from 45 to 168, including 56 state institutions and 112 non-state (private) institutions. Among the state institutions there are nine elite national universities that are autonomous and fully government-funded (e.g. the Kazakh National Technical University). The remaining state institutions are partly funded by the state. The private institutions are, however, self-funded.

The Ministry of Education and Science is responsible for quality assurance, state standards in higher education and decides which institutions that have the right to grant degrees. The basis for quality assurance in Kazakh higher education is (as in most former Soviet republics) the 3-stage process called licensing, attestation and accreditation. For an education institution to legally operate in Kazakhstan it is necessary that it is licensed. All 168 institutions of higher education are licensed. The state license is granted to institutions of higher education by the Ministry and does not imply any quality control. All licensed institutions have the right to issue diplomas in the state format.

The purpose of attestation is to check whether an institution meets the state educational standards and it is a prerequisite for accreditation. Thus, in contrast to licensing, the focus of attestation is quality assurance. The Ministry conducts attestation in five-year cycles. Institutions that have completed the above-mentioned licensing and attestation procedures with positive conclusions can receive the highest form of state recognition: accreditation.

The accreditation process is conducted by the Ministry and is applicable to both state and non-state institutions alike. Accreditation not only applies to the institution as such but also to academic programs offered at the institution. Accreditation can be suspended at any moment if shortcomings are discovered. All state institutions in Kazakhstan have state accreditation, whereas, only a few private institutions are accredited.

As of early 2004 accreditation, however, exists on paper only. Due to alleged discontent in academia and the public the accreditation of higher education institutions has been suspended, pending reform and the establishment of a national accreditation center. Thus leaving licensing and attestation as the only de facto quality assurance mechanism in Kazakh higher education still in place. Details surrounding these recent changes are still unclear.

The many new institutions that popped up in the 1990s have of course brought freedom of choice to the students of this former Soviet republic. The enormous growth of the number of institutions is, however, a mixed blessing; it is becoming increasingly difficult for the Ministry of Education and Science to guarantee the quality of higher education at all 168 institutions in the country with the new private institutions constituting the biggest headache. Against this background, several non-state institutions and campuses have been closed in recent years (in the period 2001-2003 alone 65 campuses were closed) and the number of private institutions will probably further decrease in the years to come.
New degrees
During the period 1995-1996 the Kazakh higher education system was reformed and the Western-style Degree of Bachelor [Бакалавр дипломы (Kazakh)/Диплом бакалавра (Russian)] and Master [Магистр дипломы (Kazakh)/Диплом магистра (Russian)] were introduced parallel with the traditional (Soviet era) 4-6 year Specialist degree [Мамаң дипломы (Kazakh)/Диплом специалиста (Russian)]. The doctoral level has, however, not been affected by reform; the Soviet era Candidate of Science [Ғылым кандидаты (Kazakh)/Кандидат наук (Russian)] and Doctor of Science [Ғылым докторы (Kazakh)/Доктор наук (Russian)] degrees still exist.

The Bachelor’s degree normally takes four years to complete, whereas the Master’s degree program takes an additional two years. On the other hand, graduates from so-called colleges may complete a Bachelor’s degree program in only three years and graduates from four- or five-year specialist programs may complete their Master’s degree program in one year. Furthermore, graduates from classical universities can complete Candidate of Science programs in only 2 years, whereas the rest are required to study for 3 years or longer.

In 2004 Kazakhstan applied for participation/membership in the Bologna Process, yet was denied membership since is not within the group of states that have ratified the European Cultural Convention (membership criterion). Nevertheless, Kazakhstan is reforming its higher education system along the general lines of the Bologna Process.

C. STAGNATED EDUCATIONAL SYSTEMS

Countries: Belarus, Tajikistan, and Turkmenistan

Typical of this category is an unwillingness to reform that has left many of the features of the Soviet centralized education system intact. Belarus with its expressed disinterest in the Bologna Process and piecemeal elimination of the private
educational sector in recent years has contributed to the further stagnation of the country's educational system. Furthermore, Tajikistan has despite efforts to reform its degree structure and the establishment of foreign institutions undergone few changes since the disintegration of the Soviet Union. Finally, Turkmenistan by its shortening of primary and secondary education to nine years and replacing education with indoctrination and personal cult of the Turkmenbashy, is in fact reversing the educational gains of the Soviet system and depriving a whole generation of Turkmen proper education.

Example: The educational system of Belarus

Primary and secondary education and admission to higher education
Children in the Republic of Belarus start school at the age of 6-7 and the length of primary and secondary education is as in Soviet times 10-11 years. By the year 2010 it is planned that the primary/secondary cycle will be extended to include a 12th year. Primary and secondary education in Belarus can be divided into following three levels:

- Primary general education [общее начальное образование (Russian)] (grade 1-4)
- Basic general secondary education [общее базовое образование (Russian)] (grade 5-10)
- Complete general secondary education [среднее (полное) общее образование (Russian)] (grade 11-12).

The Belarusian authorities have experimented with national entrance exams [Централизованное тестирование – ЦТ (Russian)] since 2003. In 2004 approximately 90 % of all students wrote the test and as of 2005 the test is mandatory for all school leavers and includes the subjects Russian or Belarusian and six additional subjects: biology, chemistry, Belarusian history, mathematics, optional foreign language (English, French, German, or Spanish), and physics. The test is given twice a year. The purpose of the national entrance exams is to end the corruption usually associated with admission to higher education institutions in Belarus.

Post-secondary vocational education takes place at the following types of schools:

- Vocational school: училище (Russian)
- Vocational technical school: техникум (Russian)
- College: колледж (Russian)
- Professional lyceum: профессиональный лицей (Russian)

New degrees
There are four types of higher education institutions in the Republic of Belarus: university [універсітэт], academy [академія (Russian)/акадэмія (Belarusian)], institute [інститут (Russian)/інстытут (Belarusian)], and higher college [высший колледж (Russian)/вышэйшы каледж (Belarusian)]. In the year of independence 1991 Belarus had 185,000 students. Since independence in 1991 both the number of
students and institutions of higher education has grown. In 2004 the country had a total of 304,000 students with approximately 240,000 or 4/5 enrolled at state institutions. During the same period the number of institutions of higher education has grown from 33 to 43, including 31 state and 12 non-state (private) institutions.

In 1996 there were as many as 20 private institutions of higher education in Belarus. Since then the State has tightened its control over the higher education and today there are only 12 private institutions in Belarus. The latest private institution to close was the European Humanities University in 2004. Its activities were allegedly terminated due to the lack of adequate spacing. According to other sources the authorities closed the university as a result of its close ties to the West and outspoken critique of the rule of President Alexander Lukashenka. Soon after the closure of the European Humanities University a new state university was established in the town of Baranavichy: The Baranavichy State University. State institutions offer academic programs in all fields of study, whereas the remaining non-state institutions are limited to offering programs in the fields of humanities and social sciences.

Approximately 20-50% of the students at state institutions are eligible for grants, loans, and tuition-waivers – the rest have to pay tuition costs at a minimum of 600 USD per year. (Prestigious universities in Minsk may charge up to USD 2000 per year.) Non-state institutions only admit fee-paying students. The basis for quality assurance in Belarusian higher education is the three processes called licensing, attestation and accreditation (see Kazakhstan above).

Keeping the Soviet degree structure intact
The current degree structure in Belarus is in many respects a modified version of the Soviet system of higher education with traditional 5-year (in some cases 4 or 6 year) programs leading to a Specialist degree [Диплом специалиста (Russian)/Дыплом специяліста (Belarusian)]. The Specialist degree is the most common form of degree and usually requires passing two state exams and a written thesis. The first two years in the degree program focus on general subjects.

In addition to the Specialist degrees the Belarusian authorities have experimented with the Western-style Bachelor’s [Диплом бакалавра (Russian)/Дыплом бакалаўра (Belarusian)] and Master’s degrees [Диплом магистра (Russian)/Дыплом магістра (Belarusian)]. The Belarusian Degree of Bachelor was introduced at some elite institutions in Minsk (e.g. Belarusian State University, Minsk State Linguistic University etc.) during the late 90s. The most promising students in 4-5 year Specialist program are offered the possibility to pursue a Bachelor’s degree by taking additional courses of 300-500 hours. Students of these programs graduate with both a Specialist and a Bachelor’s degree. The Bachelor’s degree serves no purpose on the Belarusian labor market, yet is awarded with the objective of facilitating for Belarusian students going abroad and may in some cases be a prerequisite for admission to Master’s degree programs and/or doctoral studies. Only 5% of all students graduate from Bachelor’s degree programs.

The Belarusian Master’s degree takes 1-2 years to complete and requires a thesis. This form of degree is also uncommon and only 1% of the students pursue Master’s degree programs. The doctoral level, furthermore, has not been affected by reform; the Soviet era Candidate of Science [Кандидат наук (Russian)/Кандыдат навук (Belarusian)] and Doctor of Science [Доктор наук (Russian)/Дактарант навук (Belarusian)] degrees still exist. Belarus is the only European country that does not participate in the Bologna Process.
APPENDIX 1.
THE EDUCATIONAL SYSTEM OF UZBEKISTAN

- Doctor of Science  Fanlari doktori
- Candidate of Science  Fanlari nomzodi  3 YEARS
- Master's Degree  Magistr diplomi  2 YEARS
- Bachelor's Degree  Bakalavr diplomi  4 YEARS
- National Entrance Exam
- Diploma of Postsecondary Vocational Education  O'rta maxsus ta'lim to'g'risidagi diplom  2-4 YEARS
- Certificate of Secondary Education  O'rta Ma'lumot To'g'risida Shahodatnoma  11-12 YEARS
APPENDIX 2.
THE EDUCATIONAL SYSTEM OF KAZAKHSTAN

Doctor of Science Ғылым докторы/Доктор наук

Candidate of Science Ғылым кандидаты/Кандидат наук 2-3 YEARS

Master’s Degree Магистр дипломы/Диплом магистра 1-2 YEARS

Bachelor’s Degree Бакалавр дипломы/Диплом бакалавра 4 YEARS

Specialist Degree Маман дипломы/Диплом специалиста 4-6 YEARS

Unified National Testing Exam

Certificate of Secondary Vocational Education Кəсіби өрт білім дипломы/Диплом о среднем профессиональном образовании 2-4 YEARS

Certificate of (Complete) Secondary Education Орта білім туралы аттестат /Аттестат о среднем (полном) общем образовании 11-12 YEARS
## APPENDIX 3.
### THE EDUCATIONAL SYSTEM OF BELARUS

<table>
<thead>
<tr>
<th>Degree Type</th>
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<tr>
<td>Candidate of Science Кандидат наук/Кандыдат навук</td>
<td>3 YEARS</td>
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<td>Master’s Degree Диплом магистра/Дыплом магістра</td>
<td>1-2 YEARS</td>
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<tr>
<td>Bachelor’s Degree Диплом бакалавра/Дыплом бакалаўра</td>
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<tr>
<td>Specialist Degree Дыплом специаліста/Диплом специалиста</td>
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### National Testing Exam

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<td>Diploma of Postsecondary Vocational Education Диплом о среднем профессиональном образовании</td>
<td>2 YEARS</td>
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<tr>
<td>Certificate of (Complete) Secondary Education Аттестат о среднем (полном) общем образовании/Атэстат аб (поўнай) сярэдняй адукацыі</td>
<td>10-11 YEARS</td>
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APPENDIX 4.
SAMPLE DEGREES

Russian Specialist Degree (2003)
Ukrainian Bakalavr Degree (2005)

Belarusian Specialist Degree (2005)
Uzbek Bakalavr Degree (2002)

Kazakh Specialist Degree (2003)
**APPENDIX 5.**
**TRANSLATION OF UZBEK TRANSCRIPT (2001)**

Translated from Uzbek & Russian
Translated from Uzbek
Copy

*The Tashkent Automobile & Road Construction Institute*

**Appendix to the BACHELOR'S Diploma B 044121**

**(Extract from Student's Rating Book)**

Surname:  
Name:  
Patronymic:  
Studies Entrance's Year:  1997  
Studies Finishing Year:  2001  
Direction:  Systems of Surface Transportation  
Diploma Registration #:  230

*The present Appendix is issued without the Diploma.*

During his studies he has passed the following subjects:

<table>
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<tr>
<th>#</th>
<th>Name of Subjects according to the Curriculum</th>
<th>Quantity of Academic Hours, established by the Curriculum (Max Point)</th>
<th>Quantity of Collected Points (Rating)</th>
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<td>72.69</td>
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<td>Philosophy</td>
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</tr>
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<td>Fundamentals of Economic Theory</td>
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<td>Uzbek Language</td>
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27. Thermodynamics & Heating Engineering 34 31.28
28. Fundamentals of Tribology 34 31.28
29. Automation & Production Process 28 21
30. Hauling Units' Configuration 68 61.2
31. Theory of Automobiles 34 29.6
32. Labor Protection 115 87.05
33. Theory & Dynamics of Car Engines 79 68
34. Civil Defense 30 25.8
35. Motor Car Roads 34 31.62
36. Computer Graphics 28 25.2
37. Jurisprudence 51 44.13
38. Traffic Rules 51 48.96
39. Manufacturing Surface Hauling Units 120 102.2
40. Lifting & Transportation Machinery 28 25.2
41. Fundamentals of Ecology 34 30.3
42. Technology of Automatic Assembling Process 30 27.9
43. Psychology 34 32.64
44. Religion Science 34 33.66
45. Ethics & Aesthetics 51 38.25
46. Theory & Equipment of Cutting 56 48.2
47. Electrical Equipment of Machines 42 36.12
48. Diggers & Building Machines 60 54.6
49. Roads' Structure, Their Maintenance & Servicing Care 24 20.64
50. Automobiles’ Maintenance & Servicing Care 24 24.0
51. Chemmotology 28 24.08
52. Democratic Society Making in Uzbekistan 60 54.6
53. Population Protection 50 41.0
54. Sociology 28 24.08

**Total:**

Additional Lectured Subjects

Quantity of Academic Hours, established by the Curriculum (Max. Point)

Quantity of collected points (Rating)

**Special Subjects**

*Term Projecting in Architecture & Town-Planning*

1. Uzbekistan is on Threshold of XXI Century 51 39.78
2. Forward to Great Future 24 21.12
3. Uzbekistan is aspires to XXI Century 17 14.62
4. Free & Prosperous Fatherland 17 10.32
5. Idea of National Independence 51 45.9

*Term Papers in:*
RESOURCES

Eastern Europe

Russia

List of accredited institutions (Russian): www.edu.ru/db/cgi-bin/portal/vuz/vuz_sch.plx

Website of the Russian ENIC with description of the educational system and sample documents (Russian and English): www.russianenic.ru


Ukraine
Website of the Ministry of Education and Science of Ukraine with description of the educational system and list of accredited institutions (English and Ukrainian): www.education.gov.ua

also
www.mon.gov.ua (Ukrainian)


Belarus
Website of the Ministry of Education of the Republic of Belarus with legal documents and list of accredited institutions (Russian): www.minedu.unibel.by

Moldova
Website of the Ministry of Education with description of the educational system and list of accredited institutions (Moldovan): www.edu.md

South Caucasus

Armenia
Website of the Armenian TEMPUS. Information on the educational system and reforms (English): www.tempus.am

Azerbaijan

Georgia
Website of the Georgian TEMPUS. Very useful information on the educational system and recent reforms (English): www.tempus.ge
Central Asia

Kazakhstan
Website of the Kazakh TEMPUS (English and Russian): www.tempus.kz

Turkmenistan
Website of the Turkmen TEMPUS (English): www.tacistm.org/tempus

Uzbekistan
Website of the Uzbek TEMPUS with information on the educational system and list of recognized HEIs (English): www.tempus.europahouse.uz

General resources
Website of the German NARIC (German): www.anabin.de