PROGRESS REVIEW ON EDUCATION FOR SUSTAINABLE DEVELOPMENT IN CENTRAL ASIA: ACHIEVEMENTS, GOOD PRACTICES AND PROPOSALS FOR THE FUTURE
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1. INTRODUCTION

It is a matter of common observation that ideas of sustainable development anticipate balanced economic, environmental and social development for the improvement of life conditions of both present and future generations. These ideas have received significant understanding and support in the Central Asian countries, which gained their independence in 1991, and have been actively included into the global process of moving toward sustainable development.

Environmental problems of the Central Asian (CA) subregion are closely connected with global ones as well as directly connected with the local economic and social problems; they possess common routes despite the diversity and specific character of each country. The general environmental situation in Central Asia is characterised by environmental breakdown, a decrease of the natural landscape’s productivity, depletion of water systems, soil erosion, pollution and a worsening of the human environment.

For CA countries, as UNECE members, it is known that “…sustainable development is a complex issue, encompassing economic, environmental and social dimensions. In other words, development is essential to satisfy human needs and improve the quality of human life. At the same time, development must be based on the efficient and responsible use of all of society's scarce resources - natural, human and economic”:

CA countries share the opinion that “Our vision for the future is of a region that embraces common values of solidarity, equality and mutual respect between people, countries and generations. It is a region characterised by sustainable development, including economic vitality, justice, social cohesion, environmental protection and the sustainable management of natural resources, so as to meet the needs of the present generation without compromising the ability of future generations to meet their needs”.

The problems of the Aral Sea, the Caspian Sea, the provision of drinking and irrigation water, efficient use of water resources, pollution of water sources, the health of the population, interaction between agriculture and the energy sector are the prospective issues for the joint efforts of the CA countries, partners and donors. Such interaction could lead to a real development of national environmental, social and economic programmes.

Central Asia has its specific environmental, economic and social problems due to the fact that Central Asia has common environmental ecosystems; the ecosystem approach finds broader understanding and support in Central Asia at the present time. Apparently, only an integrated process of solving environmental, social and economic issues could provide Central Asia with results.

As far back to 2002, at the World Summit on Sustainable Development (WSSD) held in Johannesburg, the idea was expressed that the lack of education and the low level of knowledge within the population on issues of sustainable development is possibly a reason for existing problems in environmental, social and economic spheres. This directly relates to the current situation in Central Asia as well; the insufficient and sometimes low levels of knowledge on the environment and sustainable development amongst decision makers, users of nature resources, educators and people at large is one of the reasons for the total worsening of the environmental situation in the subregion.

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1 (Appendix 2 to the UNECE Strategy on ESD)
2 (Extracts from text of the UNECE Strategy on ESD)
Education is a key tool for a transition to sustainable development through the forming of knowledge, skills, abilities and the opinions of people required for their active participation towards sustainable development and an interconnected solution to economic and social challenges in accordance with the requirements of environmental protection.

At the present time, the role of education for sustainable development (ESD) is greater than ever while environmental pollution in the region becomes catastrophic in scale. In addition, systems of education in science in the CA countries should correspond with the goals and principles of sustainable development.

2. PARTICIPATION OF CENTRAL ASIA IN GLOBAL AND REGIONAL ESD PROCESSES – UNECE AND APR

Issues of development, and the promotion of ideas and principles of ESD, clearly correspond with the international processes:
1) The UN Decade on ESD;
2) Development and implementation of the UN Economic Commission for Europe Strategy on ESD and the ESD Strategy in the Asian-Pacific Region;
3) With the subregional ESD process in Central Asia.

2.1. Global ESD processes

At the WSSD in Johannesburg (South Africa) in 2002, the ESD was proclaimed as one of the priorities of the global environmental policy. The need to include the concept into the education system at all levels was outlined in the Johannesburg Declaration in order to develop education as one of the key factors of transformations. As a follow up of the WSSD, the UN General Assembly adopted the Resolution, “The UN Decade on Education for Sustainable Development, starting from January 1st, 2005” and announced the Decade on Education for Sustainable Development from 2005 to 2014.

All these global ESD processes have not escaped observation in Central Asia, whose delegation took an active part during the Summit, in particular when the CA Initiative (CAI) was proposed at a special presentation by the countries of the subregion. At the presentation it was decided to conduct broad consultations during the preparation for the WSSD. CA countries have adjusted cross-sectoral and subregional goals in the spheres of environment, water and capacity building and referred to the international community to support their efforts for achieving sustainable development. That initiative has combined the experience of Central Asian countries over the years since independence and it has been supported by the final decision of the Summit. The initiative covers the strengthening of cooperation mechanisms, the setting up of partner relations between the states, the private sector and international and public organisations in order to achieve common goals of sustainable development in the Central Asia. There were seminars, round tables and conferences conducted in the countries of the subregion in order to identify further steps for the development of the CAI during the period after the Kiev Conference of Ministers of Environment Protection. As a result, proposals of the Initiative were included into different national programmes. In addition to that, there were a number of new subregional programmes receiving broad support, including the CA Environmental Education Programme (EE) for Sustainable Development.

ESD is an essential part of one of the expected results of the CA Agenda-21, i.e. development of civil society and democracy, and reflects both global and regional priorities as well as the national needs and requirements of the education systems of the CA countries.

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4 [www.johannesburgsummit.org/html/sustainable_dev/p2_partners_other_areas/central_asian.pdf](www.johannesburgsummit.org/html/sustainable_dev/p2_partners_other_areas/central_asian.pdf)
Goals and activities in the educational sphere are identified and implemented by CA countries based on participation in the corresponding international processes, including the Strategies on ESD of the UN Economic Commission for Europe and Asian-Pacific Region, and taking into consideration the national priorities and specifications.

### 2.2. Regional priorities and processes in the ESD sphere

Beginning in 2002, the processes of development and implementation of the regional Strategies on ESD have been actively developing in order to support the UN Decade on ESD in the United Nations Economic Commission for Europe (UNECE) in cooperation with UNESCO, and in the Asia-Pacific Region (APR).

CA countries, due to their geopolitical location, have a unique opportunity to take part in the processes of environmental protection and sustainable development in both the European and Asia-Pacific regions. Coordination of ESD processes in Europe is implemented by the UNECE, in cooperation with European Bureau of UNESCO. In the APR they are implemented by the Regional Bureau of UNESCO in Bangkok and in Central Asia by the Cluster Bureau of UNESCO in Almaty, as well as representative offices of UNESCO in the other CA countries.

Participation in the ESD processes in both regions provides the CA countries with a unique opportunity to study the best experiences of its partners, exchange best practices and compare priorities. In addition, the CA subregion can implement the most appropriate practices while taking into consideration the national conditions, priorities and needs.

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Preparation by CAREC in 2007 of the new report "Progress review on ESD in Central Asia: achievements, good practices and proposals for the future", is also the sole initiative of the subregion based on the experiences and achievements of Central Asia on the ESD after the Kiev Conference (2003). The report contains further promotion of sustainable development to the education systems of the subregion.

#### 2.2.1. The ESD Strategy for APR

Central Asia has taken an active part in the development of the ESD Strategy for the APR through participation in strategic seminars and trainings on the preparation of the regional review, “Situational Analysis on ESD in APR”, that has been added as a chapter to the overall “Situation Analysis on ESD in the Asian-Pacific region”. That work has been implemented by the Central Asian Regional Environmental Centre’s (CAREC) EE Programme in cooperation with the CA Working Group (CAWG) on EE and ESD and with support of the UNESCO Regional Bureau in Bangkok and the Cluster Bureau of UNESCO in Almaty. Both reports were presented at the 4th Subregional Conference on EE and ESD, September 21-22, 2005, in Almaty.

Participation in that project has given CA countries an opportunity to compare ESD priorities in APR with European ones, widened their cooperation with Asia-Pacific partners, developed common efforts on ESD, and allowed participation in international meetings and general ESD processes in APR.

#### 2.2.2. The UNECE Strategy on ESD

At the High Level Meeting in Vilnius, in March, 2005, ministers of Environment Protection and Education of the UNECE region adopted the UNECE Strategy on Education for Sustainable Development, a document recognising the central contribution of the education system: knowledge and innovations are recognised as the main driving forces of sustainable development (SD). “Education, in addition to being a human right, is a prerequisite for achieving sustainable development and an essential tool for good governance, informed decision-making and the promotion of democracy. Therefore, education for sustainable development can help translate our vision into reality”

Central Asia has taken an active part in the development of the UNECE Strategy on ESD and today Central Asian representatives are members of working and expert bodies for the implementation of the UNECE Strategy on ESD and, as a general rule, they represent a common

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5 Extract from text of the UNECE Strategy on ESD
subregional position, such as at the Pan-European Conference in Kiev (2003); High Level Meeting on ESD in Vilnius (2005) and meetings of the UNECE Committee on Environment Policy (2005, 2006). In addition, they confirm that:

- EE and ESD are the key priorities for achievement of the goals of SD as well as a prerequisite condition for the implementation of subregional and national programmes on SD,
- Support the implementation of the UN Decade on ESD, the UNECE Strategy on ESD, and the Vilnius Frameworks of implementation and the activity of the expert group for the development of indicators for implementation of the Strategy.

Thus, at the meeting in Vilnius on March 16-17, 2005, the experience of the subregional cooperation in Central Asia on ESD was included into the final documents of the Conference. In addition, Central Asia takes an active part in the annual meetings of the UNECE Steering Committee on the implementation of the Strategy on ESD and has a joint CA coordinated position on ESD, based on its five year programme of environmental education for sustainable development, established with support of the Ministers of Environment and Education and supported by CAREC.

In 2005-2006, at the meetings of the Steering Committee, CA countries presented a common position on their achievements, initiatives and needs for implementation of the Strategy on ESD in Central Asia. During elections to the Bureau of the Steering Committee, a member of the CAWG on ESD from Kyrgyz Republic was nominated by CA countries. On December 4-5 2006, at the Second meeting of the UNECE Steering Committee on the implementation of the UNECE Strategy on ESD, Central Asian countries presented a Statement of the Fifth Anniversary Conference of Central Asia on ESD in Bishkek and have appealed to the international community for support of ESD process in Central Asia. CA countries and CAREC have presented the first results of the implementation of the Strategy as a first voluntary review “Progress Report on ESD in Central Asia”, prepared in 2006, and based on indicators developed by the UNECE expert group (EG).

In October 2007, at the Belgrade Pan-European Ministerial Conference “Environment for Europe”, there will be a special session devoted to ESD, where ministers of Environment and Education of the UNECE region will present first outlines and report on progress on the implementation of the Strategy. Countries were invited to provide voluntary reports on the implementation of the UNECE Strategy on ESD; the UNECE Report on progress on implementation of the UNECE Strategy for ESD “Learning from Each Other: Achievements, Challenges and the Way Forward”, was prepared based on that. The report contains experiences and achievements of Central Asia as well as described examples of the Central Asian subregional cooperation on ESD. In addition to that, UNECE and UNESCO, in the frames of preparation for the Belgrade Ministerial Conference, have prepared a publication – “The collection of best practice examples on ESD in UNECE”, which also contains Central Asian examples and experience in the ESD sphere.

Therefore, the presentation of voluntary reports on the Strategy on ESD of the countries of the UNECE region will take place at the Pan-European Belgrade Ministerial Conference in 2007, and then in 2010 the countries will have to provide obligatory reports in the format of ESD indicators. Such a regular system of international reporting will be a motivation and a way of achieving outcomes planned in the sphere of introducing SD elements into the education systems of Central Asian countries.

3. THE SUBREGIONAL ESD PROCESSES

Initiatives of the WSSD, UNESCO and UNECE on ESD have found support and understanding in the Central Asian countries taking into consideration the Decisions of the First Subregional seminar on EE in Dushanbe, June 21-22, 2002. CAREC has created an overall CA Programme of Environmental Education for Sustainable Development in January, 2003.

It is important to highlight that a particularity of Central Asia is that, in line with national processes, Central Asia has a strong subregional processes, referring to all components of sustainable development, i.e. environment, economic and social and including the education system as well. In
addition, an important distinction of the ESD process in the CA region, as in many countries of EECCA region, is that environmental education still remains one of the main components of ESD in Central Asia.

From one side, ESD covers a wider circle of competences and topics regarding sustainable development in comparison with EE. From the other side, there is a possibility to use existing human resources and experience in Central Asia, gained in the EE sphere, in order to develop ESD and a widening cooperative network on ESD in the CA subregion at all levels, i.e. formal and non-formal; pre-school, school, higher and professional education.

Today, the experience of subregional cooperation of the CA countries on ESD is recognised by our partners as one of the best in Europe and Asia. Active participation of Central Asia in the processes of development and implementation of the ESD Strategies in Europe and Asia is a good opportunity for coordination and integration of national and subregional programmes with global and regional initiatives.

3.1. Subregional Environmental Education Programme for Sustainable Development in Central Asia

ESD is one of the key priorities of subregional and national programmes on sustainable development, and EE is one of the main components of ESD for CA countries.

The goal of the EE Programme during 2003-2006 was the salvation of priority subregional problems in the educational sphere through the achievement of the following tasks:

- To set up a sustainable connection of exchange by experience and a methodological base in the EE sphere between educational institutions in the CA countries;
- To develop common approaches and principles of forming the EE programmes;
- To develop data bases on EE accessible to the public;
- To create a network of informational, methodological and training centers in the countries;
- To introduce modern textbooks, manuals and methodological materials in the EE and ESD spheres;
- To attract new investments to the region for implementation of programmes and projects.

It could be said today, that the Central Asian EE Programme has gained good experience and is gradually transforming its ESD Programme taking into consideration the global and regional tendencies. Confirmation of that are the new tasks set up for the Programme for 2007-2011 which correspond with both the international priorities on education and the needs of the CA countries:

1. To assist in the development of dialogue and networking on ESD in order to share experience on ESD in the CA subregion (networking and data bases on ESD).
2. To provide support for the development of the National plans on ESD in the CA countries (institutional base for promotion of ESD).
3. To provide support for the development of national standards in the CA countries (integration of ESD into educational systems of the countries).
4. To build capacity of ESD through trainings for different target groups (capacity building on ESD).
5. To develop and introduce modern textbooks, manuals and methodology on ESD (materials).

It is important to outline the following goals of the UNECE Strategy on ESD:

1. Ensure that policy, regulatory and operational frameworks support the promotion of ESD
2. Promote SD through formal, non-formal and informal learning
3. Equip educators with the competence to include SD in their teaching
4. Ensure that adequate tools and materials for ESD are accessible
5. Promote research on and development of ESD
6. Strengthen cooperation on ESD at all levels within the UNECE region and main topics of the CA EE for SD Programme are congruent.

The activity of the CA EE Programme was primarily vitalised by the preparatory process for the Kiev Ministerial Conference, “Environment for Europe”, in May 2003. Thus, before the Kiev Conference there was the 2nd Subregional Consultative Meeting, “Environmental Education for Sustainable Development in Central Asia”, conducted in Bishkek on April 24-25 2005. Here the Joint Statement of Ministers of Education and Environment of Central Asian countries’ on EE and ESD was adopted. Presentation of the Central Asian subregional position on ESD and the new Central Asian programme on EE for SD was conducted at the plenary session in Kiev, “Enlightenment for Sustainable Development”. Results of the Bishkek Meeting on EE were included in the final documents of the Kiev Conference.

Central Asia has established and developed mechanisms for the coordination of programmes and projects in the EE and ESD spheres, with participation of main stakeholders, including the ministries of Education and Environment, scientific bodies, educational institutions, public and international organisations. Hundreds of organisations, schools, independent experts and volunteers have formed a joint CA Programme on EE and ESD.

The Central Asian EE Programme provides practical support to educational institutions, ministries and NGOs in Central Asian countries through the mutual implementation of projects on the development of new teaching materials, posters, CDs, videos on climate change, water problems and biodiversity, etc., educational, methodology and information materials; conducting trainings for educators and annual subregional conferences for stakeholders.

3.2. Activity of the Central Asian Working Group on EE and ESD

The Central Asian Working Group on EE and ESD began making decisions and implementing projects on EE and ESD in Central Asia in 2003. Cooperation of educational, environmental, scientific sectors of NGOs is strengthened through its activity. On September 21-22 2005, at the 4th Subregional Conference on ESD, authorisation for CAWG were extended for the period leading up to the Belgrade Ministerial Conference, and its members have received a mandate to report on the progress on ESD at the meetings of the Steering Committee on implementation of the UNECE Strategy on ESD.

3.3. Annual subregional conferences of Central Asia on ESD

Such conferences on ESD have been conducted on a regular basis since 2002, in the capitals of the CA countries. They outline the results of the work on EE and ESD during the year, compare international priorities with national requirements and needs as well as identify new tasks for the future.

From 2002 to 2006, CAREC has conducted five subregional conferences with the support of partners and donors. The conferences help the CA countries to remain informed on international, regional and subregional policy on ESD, to learn more about the current problems, needs and requirements of the CA countries in the different spheres, share experience, present examples of best practice on EE and ESD, jointly develop new analytical, educational and methodological materials, as well as develop a subregional position on ESD for presentation at the international level. In addition, participants of the conferences have an opportunity to receive new information and educational materials for practical use in their work at national and local levels.

Our permanent partners, such as the European Commission, the UNESCO Cluster Bureau in Almaty, the UNESCO Regional Bureau in Bangkok, OSCE Centers in CA countries, the British Government, UNU/IAS (Japan), and others, are actively supporting the subregional conferences and projects on ESD.
The First CA Subregional seminar on EE, conducted 21-22 June 2002 by the Ministry of Nature Protection of the Republic of Tajikistan, through the support of CAREC, the UNESCO Cluster Bureau in Almaty and the US Agency on Environmental Protection, has initiated that practice. The experience of the CA countries on EE was considered at the seminar, and CAREC has received advice from participants for the development of the subregional EE Programme.

The CA Programme on ESD was approved at the Second Subregional Consultative Meeting, “Environmental education for sustainable development in CA”, in April 2003 in Bishkek, held with the participation of the ministers of Environment and Education of the CA countries, experts from CA countries, representing NGOs, science and secondary schools. The General Statement of the Ministers of Education and Environment of CA countries on EE and ESD for presentation in Kiev was developed and CAWG on EE and ESD was created.

Presentation by international organisations on modern processes and global initiatives on EE and ESD, including the UN Decade on ESD (2005-2014), the UNECE Strategy on ESD, and the Strategy on ESD for APR, were organised at the Third Subregional Conference on EE and ESD in Central Asia, on November 10-11 2004 in Almaty. The “Statement of Central Asian countries on education for sustainable development” was also adopted.

Presentation of the UNECE Strategy on ESD was conducted at the 4th Subregional Conference on EE and ESD in Central Asia, on September 21-22 2005 in Almaty. In addition, working groups discussed the priority activities of the CA countries on their implementation in Central Asia and developed a list of priority indicators for the subregion on ESD. The Review, “Situational analysis on ESD in Central Asia”, was presented at the Conference, prepared with support of the UNESCO Cluster Bureau in Almaty and the UNESCO Regional Bureau in Bangkok, in the frames of the Asian Pacific Review of the Situational Analysis on ESD.

The 5th Anniversary Conference of CA countries on ESD, with the participation of all stakeholders, was conducted on October 24-25 2006 in Bishkek, as an international event. It included presentations by CA countries and international organisations, such as UNESCO, UN University in Japan, and CAREC on promotion of global initiatives on ESD – UN Decade on ESD (2005-2014), implementation of the UNECE Strategy on ESD and the Strategy on ESD for the Asia-Pacific region. The “Progress Review of Central Asia on ESD” was presented at the Conference, prepared with support of the UNESCO Cluster Office in Almaty, the UNESCO Regional Bureau in Bangkok and the European Commission in the framework of preparation to the Belgrade Ministerial Conference (2007).

The 6th Subregional Meeting of CA on ESD is planned in Almaty for September 2007, before the Belgrade Ministerial Conference. Members of CAWG on ESD will participate at the meeting, which will consider progress on the implementation of the UNECE Strategy on ESD in CA countries and will develop a common CA position on ESD for presentation in Belgrade.

The annual conducting of the subregional conferences is evidence of the sustainability of the Central Asian ESD process; it can be considered as a model of successful CA experience on ESD and represents a unique opportunity for new interested partners to join the process. Information received at the annual conferences, experience and materials are used by CA countries in the educational process at national and local levels through trainings, seminars and practical activities by educators, state officials and NGOs.

3.4. Analytical Central Asian reviews on progress in ESD

From 2003 to 2006, CAREC, in cooperation with the CA countries, has prepared three analytical reviews on EE and ESD. One review, “Conditions, perspectives and ways of development of environment education in Central Asia”, was prepared with the support of the European Commission in 2003 before the Kiev Ministerial Conference and devoted to characteristics of the current situation, perspectives and directions for the development of EE in CA countries. The review contains data on laws, concepts and EE programmes, as well as number of proposals for the improvement of cooperation for further development of the EE system at the subregional level,
taking into consideration the global and European priorities, and guidelines for sustainable development. The review was prepared based on materials provided by state bodies of education and science and environmental, non-government organisations of the CA countries.

The second review, “Situational Analysis on ESD in Central Asia”, was prepared by CAREC with the support of the UNESCO Regional Bureau in Bangkok, and became a part of the “Situational Analysis on ESD in the Asia-Pacific region”, which was completed in 2005 and published by UNESCO-Bangkok. Content of the Review on SD key topics for APR (information and public access; knowledge systems; education; environmental protection and management in the sphere of environmental protection; peace and equality; local context; transformation; culture; interrelated topics and issues; protection and improvement of public health; environmental education) assisted in better understanding by stakeholders of the ESD context. This included the goals and tasks, the participating parties’ part in the process as well as receiving significant information on environmental conditions, its influence on public health and the interrelation of economic and environmental issues.

The third report, “Progress review of Central Asia on ESD”, was presented at the 5th Anniversary CA Conference on ESD, in Bishkek in October, 2006, prepared by CAREC with the support of the UNESCO Cluster Bureau in Almaty and UNESCO Regional Bureau in Bangkok, in the frames of preparation to the Belgrade Ministerial Conference (2007). The report was prepared with the participation of experts from CA countries based on ESD indicators developed by the UNECE Expert Group (EG) established to assist to countries in an assessment of fulfilling the obligations of the UNECE Strategy on ESD. As with the previous report on ESD CA, it was structured around ESD topics; the presentation was based on criteria for progress assessment in the sphere of the institutional and legal promotion of ESD, its introduction to educational standards, teaching programs, courses, subjects, development of informal education, etc. The value of this report stems from its ability to assess the process of implementation of the Strategy in dynamics based on the same UNECE indicators on ESD.

The review summarises the significant amount of effort taken by the CA countries in the frames of the implementation of the UN Decade on ESD and the commitment to the achievement of significant results in the implementation of the Strategy on ESD and preparation for the Ministerial Conference in Belgrade in 2007.

The goal of the Review was the research of particularities of ESD process which is taking place in the CA countries at national levels as well as the general subregional ESD process in CA. It represents a set of national reviews of CA countries on the implementation of the UNECE Strategy on ESD and is a first experience of the CA subregion in preparation of the report for implementation of the Strategy on ESD, working towards Belgrade, and prepared in the format of future reporting of the Strategy. The Review provided an assessment of the capacity of the subregion countries required for implementation of the UNECE Strategy on ESD, identification of existing gaps in legislation, strategic and educational documents on ESD, comparison of experience of different CA countries and to use best practice on ESD.

The Review was published in Russian and English languages and was disseminated at the Conference on ESD in Bishkek and later, at international meetings (Moscow, November, 2006; Geneva, December, 2006) for all interested parties. According to the opinion of the international experts, the Report can be considered as a base for further monitoring of the implementation process of the UNECE Strategy on ESD in CA.

3.5. Projects in EE and ESD in Central Asia

Central Asia has specific results on the development, publication and practical use of teaching programs of CA countries using the reviews, teaching materials, posters, CD, video on climate change, biodiversity, etc. In that order, there were some significant educational projects on EE and ESD implemented during 2002 to 2005:
3.5.1. “Environment for future generations” (2003-2004) was devoted to the creation of teaching materials for high school students in cooperation with the NGO Field Study Council (UK), Ministries of Education and Environment of Kazakhstan and with the support of the European Commission and the British Council. In 2005, the textbook was translated into Kazakh language, receiving positive feedback from the Ministry of Education and Science, and was recommended for use at the courses of natural subjects in high schools. Moreover, it has received high estimation from the partners, i.e. representatives of the state bodies, NGOs and scientists of Central Asian countries and donors. At the present time, the textbook has been adapted and translated into Tajik language and, with the support of OSCE Centre in Dushanbe, 7000 copies were published and are ready for dissemination in pilot schools of Tajikistan.

3.5.2. In 2004-2005, the next phase of the project was implemented with the support of the British Embassy in Kazakhstan and included the dissemination of the textbook in the CA subregion, the development of posters and videos on climate change and trainings for teachers. There were five posters, a 20-minute video and a manual for teachers on climate change in Russian language, which became additional learning resources for the textbook within the frames of that project. These were disseminated in experimental schools of CA countries.

3.5.3. “ESD and climate change in CA”. After completion of the project, CAREC has undertaken active work with partners on addition funding and adaptation, translation into national languages of the CA countries and dissemination of teaching materials, i.e. textbook, posters and video in schools of CA. In 2005-2006, CAREC implemented the project, “ESD and climate change in CA”, with support of the PECE/DEFRA and in cooperation with the NGO Field Study Council (UK), business organisation, “Climate Care”, the EC, UNESCO and the Norwegian project, “SPARE”.

During its implementation, posters, videos and manuals for the teachers were adapted to the conditions of the countries, translated into national languages, published and disseminated through trainings for high school teachers and NGOs of five CA countries. The introduction of 10,000 energy saving lamps was also one of the results of the project. Thus, teachers and students of Central Asian schools received a set of theoretical materials in their own languages and, in Kazakhstan; they also participated in a practical activity on saving energy. Today, about 500 teachers and 10,000 high school students have access to the teaching materials. CA scientists, teachers and NGOs believe that there a clear need for publishing an additional edition of the manual, posters and videos on climate change and their wider dissemination in all schools of the CA countries.

The mechanism of multilateral cooperation on ESD in Central Asia has been well developed, based on the example of pilot projects on implementation of the UNECE Strategy on ESD, and implemented in Kazakhstan by CAREC in 2004-2006 with support of the OSCE Centre in Almaty and with the involvement of stakeholders. Experience from the pilot projects has been disseminated throughout the CA countries.

3.5.4. In 2004, CAREC implemented the project, “Assistance for the development of environmental education within the system of secondary schools in Kazakhstan”, with the support of the OSCE Centre in Almaty. The project has developed an educational module on EE/ESD for high school teachers. Teachers of chemistry, biology, geography and other disciplines adjacent with ecology, have training on that module during in-house training for teachers. Within the frames of implementation of the project there was training for school teachers of Kazakhstan on EE and ESD, conducted by Mr. Vadim Kalinin, trainer and leading expert on EE and ESD and coordinator of the association, “Environmental Education” (AsEcO).

3.5.5. Implementation of the UNECE Strategy on ESD. In order to accelerate the ESD processes on Kazakhstan, CAREC, in cooperation with its partners, the Ministry of Environment Protection, the Ministry of Education and Science, Parliament, representatives of science, business, public organisations and mass media, and with the support of the OSCE Centre in Almaty and the European Commission, implemented the project on “Promotion of ESD into system of formal and non-formal education of Kazakhstan”, in 2006.

The project has achieved following results:
1. Conducted an analysis of Kazakhstan’s legislation for the purpose of correlation with the UNECE Strategy and developed recommendations for the strengthening of legislation and policy for the ESD sphere (proposals to the drafts of laws “On education”, “Environmental code” and to the draft of the “Concept of Transfer of the Republic of Kazakhstan to Sustainable Development for 2007-2024).

2. The UNECE Strategy on ESD, with annexes, was translated into the state language, published and disseminated between stakeholders, as well as presented at the following web sites: UNECE http://www.unece.org/env/esd/, CAREC www.carec.kz; and other partners.

3. Developed proposals and recommendations for the improvement of procedures and content of state standards in the High Education System of the Republic of Kazakhstan.

4. Developed a draft of the “National Plan on orienting education for the sustainable development of Kazakhstan”.

Due to the fact that outcomes of the project were presented at the Fifth Subregional Conference on ESD in Bishkek on October 24-25 2006, where recommendations on its further promotion and dissemination in CA subregion were received, it could be highlighted that such pilot projects on the implementation of the UNECE Strategy on ESD, established a good base for motivating all CA countries towards the introduction of ESD into their education systems.

3.5.6. “Development of the teaching and methodology manual on ecology for teachers of primary school and recommendation for its implementation in CA countries” (2005-2006) was successfully implemented in 2005-2006 in cooperation with the Ministries of Education and Environment of Uzbekistan with support of the UNDP and the Regional Office on Environment, Science, Technology and Public Health of the US Embassy in Uzbekistan. The manual, “Environmental education and up-bringing in primary school”, was published in Russian and Uzbek languages and recommended for use by the Ministry of Public Education of the Republic of Uzbekistan. The manual was disseminated in CA countries of the region as well as in the Russian Federation and Byelorussia. The project has received a certificate from the International Contest on SD, “Energy Globe”, from the Euro Parliament, for first place in the national nomination.

4. NATIONAL ESD PROCESSES IN CA COUNTRIES

ESD is a key factor for achieving sustainable development; no doubt, it has significant opportunities for influencing future development within CA countries and whole subregion in general.

It could be outlined today that almost all countries have started the process of implementing the UN Decade on ESD and the UNECE Strategy on ESD. In 2005-2006, all CA countries appointed coordinators for ESD and most of them are the members of CAWG on ESD, which work in cooperation with one another in the CA subregion and with the UNECE Secretariat on ESD. CA countries have prepared their voluntary reports on the progress of implementing the Strategy in frames of the subregional, “Progress Review of Central Asia on ESD” (2006), as well as country reports for the UNECE before the Belgrade Ministerial Conference. It is seen from the reports that the CA countries are in different stages of implementation of the Strategy. For instance, Kazakhstan, Tajikistan and Uzbekistan completed work on translation of the Strategy into national languages and its publishing in 2006 and Kyrgyzstan and Turkmenistan in 2007; Kazakhstan has reformed its legislation and policy documents, focusing on achieving SD; the process is actively taking place in Kyrgyzstan and will soon commence in Turkmenistan.

Due to the fact that the UNECE Strategy on ESD is first of all addressed to the Governments of the UNECE region, its implementation is a responsibility of the Ministries of Education and Environment on behalf of the state bodies, thus, countries of the UNECE region (including CA countries) have to take all of the required efforts for successful implementation of the goals and tasks of the Strategy. Therefore, it is the common task of state bodies, academic structures and the civil sector due to the fact that achievement of environmental safety and sustainable development of the
states is not possible without the integration of sustainable development into educational systems of the countries.

As was previously mentioned, many of pilot projects on ESD, including the one on implementation of the UNECE Strategy on ESD, were implemented in the Republic of Kazakhstan and then their experience has been disseminated throughout the CA subregion. It is important to mention that today Kazakhstan has favorable conditions regarding priorities of international policy on ESD and priorities of national policy (promotion of Kazakhstan towards entering the 50 most competitive countries of the world, adoption of the Concept of Transfer of the Republic of Kazakhstan to SD for 2007-2024 and the “Environmental Code of the Republic of Kazakhstan”, development of the new law “On Education” and others).

Within the framework of the project, “Promotion of ESD into system of formal and non-formal education of Kazakhstan”, in 2006 taking into consideration the national priorities and particularities as well as based on the six goals of the UNECE Strategy on ESD, the following tasks of ESD development in Kazakhstan that can also be adopted in CA countries were developed:

1. Provision within the legal framework of education for sustainable development.
2. Promotion of principles of sustainable development into the education system as a prerequisite for the increase of the quality of education.
3. Integration of national ethical values and traditions into the education systems in the ESD context.
4. Development of competence on ESD of educators and other experts working in education and enlightenment sectors.
5. Provision of informational, teaching and methodology materials on ESD for organisations working on education and enlightenment sectors.
6. Creation of conditions for conducting scientific research on ESD and pilot projects on the development of ESD.
7. Development of cooperation on ESD at:
   - International, regional, national, oblast and local levels;
   - Interagency;
   - Inter-sectoral.

4.1. Coordination bodies on SD issues in CA countries which also coordinate activities on ESD

In 2004, the Council on sustainable development of the Republic of Kazakhstan was created by the Government Decree #345, with the main goal of its activity to assist to forming of a new state policy on SD issues and implementation of WSSD decisions based on the inter-sectoral cooperation of state bodies, private sector and public organisations as well as the integration of economic, social and environmental sectors of Kazakhstan development.

The Coordination Council on ESD was created in Kyrgyzstan by Government Decree as of February 11th 2005, as an advising and consulting body with the goal of integrating principles of SD into the education system of the Kyrgyz Republic, within the framework of implementing the Concept of Transfer of Kyrgyzstan to Sustainable Development up to 2010, as well as the creation of the national ESD platform based on the UN initiatives of the ESD sphere. The Chairman of the Coordination Council is the Minister of Education of the Kyrgyz Republic.

The National Commission on Sustainable Development, headed by the Prime Minister of the Republic of Tajikistan, was created by the Government of the Republic of Tajikistan in 1998 in order to provide efficient participation in the salvation of SD issues for the country.

Turkmenistan has well established cooperation between the departments of the Ministry of Nature Protection and the Ministry of Education. A significant amount of effort is being taken within the framework of the State Commission of provision of fulfillment of obligations of Turkmenistan leading from the UN environmental conventions and programmes.
The Coordination Council on ESD was created in Uzbekistan based on the working commission on development of continuing environmental education in 2005, consisting of representatives of the Ministry of Education, Ministry of Higher Education, State Nature Committee, Non-Commercial Organisations (NCOs) and a number of international organisations and projects. The main goal of the Council is the coordination of the efforts of representatives of educational, nature protection structures and NCOs of the country, for the effective implementation and development of EE and ESD systems, identifying strategic directions and priorities of organisational, scientific and research, testing and experimental work in that sphere. The Council is functioning on a voluntary basis and through the personal enthusiasm of its members.

4.2. Development of a regulatory and legal framework in the ESD sphere in Central Asia

Kazakhstan has the following favorable conditions for execution of the pilot project on implementation of the UNECE Strategy on ESD:

- in 1998, Kazakhstan became a member of the UN Commission for SD,
- in 1998, the “Long-term strategy for development of the country up to 2030” was adopted,
- in 1998, the National Action Plan on Environmental Protection based on the ideology of sustainable development (NEAP/SD),
- in 2001, the Interstate Commission on preparation for the UN WSSD “Rio+10” and Kazakhstan Agenda-21.
- In 2003, the Concept of Environmental Safety of Kazakhstan up to 2015 was adopted,
- In April 2006, the Sustainable Development Foundation “Kazyna” was created, Eurasian Development Bank.

In 2006, the development of the “Concept of Transfer of the Republic of Kazakhstan to Sustainable Development for 2007-2024” began, in concurrence with the process of project implementation that played a significant role in its accomplishment due to the fact that, after beginning the project, it was clear that the national priorities of Kazakhstan are in agreement with global priorities on SD and ESD. The Concept was approved by the Order of the President of the Republic of Kazakhstan on November, 14th, 2006; development of modern education, continuing in-house training and development of personnel on ESD was identified as one of the priority tasks.

A draft of the National Plan on ESD of Kazakhstan was developed in 2006, which became a part of the Activity Plan of implementation of the “Concept of Transfer of the Republic of Kazakhstan to SD for 2007-2024”. Nevertheless, it can be outlined with confidence that today ESD issues are the main priority of national policy in the educational sphere; however, such components of ESD as quality of education, transfer to international standards, continuity of education, etc., are the priorities.

We consider that the same situation will be the case for other CA countries due to the commonality of education systems and environmental problems, good neighborly relations and a high level of cooperation in the subregion on environmental and SD issues and are the basis for the exchange of experience and promotion of ESD into legislation, policy and education systems of the CA countries.

ESD issues are reflected in the Concept of Continuing Environmental Education of Kyrgyzstan (KR), adopted by the decision of the board of the Ministry of Education and Culture of KR on September 17th 2003. The need for the promotion of ideas of environmental safety and achievement of sustainability is also reflected in the State policy of education of the Kyrgyz Republic (adopted in August, 2000 by the Order of the President of Kyrgyz Republic), which defines the strategies and tactics of education for the period up to 2025. In addition, it is a base for the development of a regulatory and legal framework; programme documents and is subject to approval by legislative order.

In the Republic of Tajikistan, ESD issues are identified in the following documents:
• The National strategy of development to 2015, in the section: provision for environmental sustainability;
• “Main tasks and measures on their implementation in provision with environmental safety”, within the framework of the Strategy on Poverty Reduction for 2007-2009. It is an environmental public awareness campaign amongst managers of different levels, for the development of environmental up-bringing, capacity building of teaching centers and development of ecotourism networks.
• Since 1998, the State Environmental Programme for 2008-2010 has been implemented in the Republic of Tajikistan, which reflects issues for the introduction of environmental policy to all economic sectors regardless of ownership type.

The Government of Tajikistan has approved the Implementation plan of reforms in the education system for 2004-2009. The change of the management structure and funding in schools in five cities and districts of the country started in January 2005 and, on that basis, there has also been an experiment conducted on the introduction of per capita funding. The “National Strategy of Development of Education for 2006-2015” was prepared in 2005, which is devoted to the salvation of goals and aims of the Millennium Development Goals.

Initiatives on ESD in Turkmenistan have been implemented within the framework of ESD components as environmental education and reflected in the following documents:
- Law of Turkmenistan “On education”
- Law of Turkmenistan “On environmental protection”
- President’s Programme “Tyaze bilim”
- President’s Programme “Saglyk”
- National Programme “Strategy of economic, politic and cultural development until 2020”.

At the moment, in Uzbekistan, ESD issues are partially reflected in the following strategic documents:
- Concept and National Strategy of sustainable development (developed in 1998);
- National Action Plan on Environmental Protection (adopted in 1998);
- National Programme on cessation of utilisation of ozone destructing substances for 2000-2006 (adopted by the Decree of Cabinet of Ministers on 24.01.2000, #20);
- National Strategy and Action Plan on reduction of greenhouse gas emissions (adopted by the Decree of Cabinet of Ministers on 09.10.2000, #389);
- National Action Plan on Desertification Combat (2000);
- National strategy and action plan of the Republic of Uzbekistan on preservation of biodiversity (approved by the Decree of Cabinet of Ministers on 01.04.1998, #139);
- National Strategy on the improvement of living standards and poverty reduction in the Republic for 2004-2010;
- Strategic programme preventive measures and reduction of tuberculosis prevalence in Uzbekistan for 2004-2008;
- National Action Plan within the framework of the Programme “Education for all” (2003-2015) implemented under the assistance of UNESCO.
- Concept and Programme of perspectives of improvement of the development system of environmental education in the Republic as well as training, re-training and in-house training of staff of environmental experts.

4.3. Key topics of SD in the curriculum/programme of study at different levels of formal education in CA countries

At the present time, such activity on the integration of key statements of SD into curricula, programmes, and standards at different levels of formal education in CA countries, is in the process of studying international experience, discussion and the beginning of implementation. Mainly it takes place within the framework of international environmental and educational initiatives (the UN
Decade on ESD, the UNECE Strategy on ESD and others) and under support of international organisations and donor-countries. In some high schools of Central Asia, innovative educators of specialised environmental schools, associated schools of UNESCO, higher education institutions (HEI), with support of international organisations, have an opportunity and some experience of developing the author’s programmes of introducing key topics of SD into the teaching process, development of educational modules on ESD, new modern educational materials on ESD and others. However, it does not yet have the nature of a permanent process and is not supported from the state budget.

In Kyrgyzstan, work on integration of key statements of ESD into teaching plans, curricula and programmes at different levels of formal education, is just starting. There are a number of educational institutions and secondary schools in Kyrgyzstan implementing initiatives in that sphere through the development of author’s programmes and educational modules on ESD as well as their integration into existing study programmes. Significant prerequisites for integration into curriculum such SD topics as “Bio and landscape diversity”, “Citizenship, democracy and/or governance”, “Human rights (gender, labor migration issues)”, “HIV/AIDS, drug abuse”, “Healthy life style”, “Cultural diversity” and “Climate change” have been made due to the efforts of international projects.

In Tajikistan, work on the introduction of ESD issues as a component into existing subjects of physics and chemistry faculties of the Tajik National University and departments of the Tajik State Technological University has begun and is being implemented at the moment.

In Turkmenistan, work on the integration of key SD statements into curriculum/programmes at different levels of formal education is being conducted. It is important to instill a love to nature, knowledge on the need of a careful approach to biodiversity, natural landscapes and healthy life style, into every stage of the educational process. Conditions for integration of such SD topics as “bio- and landscape diversity”, “healthy life style” and “climate change” into curriculum have been created, along with the highlighting of gender issues. The Law of Turkmenistan, “On Education”, states, “Pre-school education is implemented in the family, and in pre-school institutions in close interaction with family”. A significant amount of time in pre-school institutions is devoted on telling pupils about beauty, natural resources of the land and its history. Corresponding literature is published for children of prep-school age. The nature protection experience of their ancestors has become part of the family teaching in recent years, being included in the moral and ethical values that are formed in a child through their up-brining.

In Uzbekistan, as well as in other CA countries, curricula, programmes and standards of formal education reflect educational strategies supporting only EE as one of the ESD components. According to point 2.15 of the “Action Programme on Environmental Protection of the Republic of Uzbekistan for 1999-2005”, the recently developed state standard on environmental education is at the stage of approval in some pilot schools. In these schools, EE topics are included in the teaching plans of subjects to the amount of 34 hours per year and teaching programmes for these subjects have been developed. The programme, “World surrounding us”, is taught in first and second grades and “Natural history” is taught in third and fourth grades. In high school, environmental topics are integrated into such subjects as botany, biology, chemistry, geography and others. However, in most of the schools of the Republic there are no subjects on the environment or environmental protection. These subjects are taught as an optional component of existing subjects such as biology, chemistry, botany, zoology and other.

4.4. Introduction of ESD into the system of in-house training of educators of CA

Unfortunately, ESD is not a component of in-house training for educators. In-house training for educators in systems of formal education of CA countries does not anticipate consideration of ESD issues.
In Kyrgyzstan, the programme of initial training of educators includes a number of ESD issues, there are some separate elements such as “Environmental principles”, “Climate change”, “Biodiversity”, “Natural resources management”, “Public health and environment” and others.

Within the framework of the state system of in-house training, ESD is not a part of the training courses for teachers; however, there are some components devoted to awareness campaigns and education through the conducting of seminars, round tables, conferences, trainings, etc., for the different international projects, where educators of schools and HEI have an opportunity to increase their qualifications regarding ESD in general and its separate components as well.

There are a number of achievements in the sphere of the capacity building of educators of schools and HEI on the utilisation of and introduction into teaching process of such educational strategies and methods as the development of system and critical thinking; future oriented thinking; participation in the democratic process of decision making; overcoming and crisis and risk management; conflict resolution and others are achieved through projects of the “Soros-Foundation Kyrgyzstan”, “PEAKS” Programme, the Youth Programme of Kyrgyzstan, Adenauer Foundation and others. During recent years, as a result of work in the Republic of different international projects, i.e. IREX, ACCELS, UNDP, USIA, USAID, TEMPUS/TASIS, UNESCO, UNICEF, CAREC, Peace Corps and others, a significant number of educators of HEI had training in interactive methods of learning; however, their total number in the Republic remains insufficient. As a result, many of the teaching disciplines are still conducted only in traditional lecture form.

The heads of administration of educational institutions of Kyrgyzstan have had an opportunity to increase their qualifications at the Kyrgyz Academy of Education. However, in many cases, the curricula of these in-house training courses do not include the whole range of ESD issues, but only separate components. From 2005, there have been some separate projects from public organisations and international agencies devoted to the development of more complex programmes, presenting ways and perspectives on introducing an institutional approach to ESD in educational institutions. In addition, the State Agency on Environment Protection and Forestry of the Government of the Kyrgyz Republic, conducts annual in-house training courses. The curricula of the training includes sessions on review lectures of the UNECE Strategy on ESD, Vilnius Implementation Frames, opportunities for the implementation of the Strategy in the Kyrgyz Republic, country capacity assessment, etc.

In Uzbekistan, programmes of initial training for teachers mainly include EE issues, an increase of education quality and the improvement of health and gender equality as some of the components of ESD. Therefore, there is a clear need to introduce into these programmes the whole range of ESD components. In order to do that, it is important to develop a state standard on ESD. The Ministry of Public Education has 15 in-house training and re-training institutions for teacher training. At the moment, ESD is not fully represented in that system, only its separate components, such as EE, the increase of quality of education, child health and gender equality.

In Uzbekistan, there is the Central Institute of In-house Training for leading specialists of public education, named after A. Avloni, but ESD is not fully represented here. In 2005, there was a seminar conducted on the regional project, “Conduction of seminars on EE and ESD”, where specialists of public education became acquainted with the goals and aims of EE and ESD, the UNECE Strategy on ESD and the implementation of the UN Decade on ESD (2005-2014). The second seminar relating to that project was conducted at the Ferghana Polytechnic Institute.

As can be seen, all CA countries need work on introducing the full range of ESD issues into the in-house training programmes, as well as teaching various new educational technologies on ESD. Wide scale work is required for the integration of educational strategies supporting ESD into curricula, programmes and state standards at different levels of formal education.

4.5. National strategies/mechanisms for the development and production of teaching methods and educational materials on ESD

In Kazakhstan, the Republican Teaching and Methodological Council (RTMC) has been working for many years under the Ministry of Education and Science, which was responsible for the
preparation of new textbooks, teaching and methodical manuals. All materials developed for formal and informal education are sent to the RTMC for consideration and expertise. There is now a “Textbook” Centre, created under the Ministry of Education and Science, which is in charge of that activity. In addition, the Kazakh Academy of Education, named after I. Altynsarin, of the Ministry of Education and Science, provides support on issues of the production of teaching methods and materials on ESD. Education materials such as the teaching textbook, “Environment for future generations”, “Water is a source of life”, posters, manuals and video/CD on climate change in Russian and Kazakh languages, and others were recommended in 2005-2006 by the RTMC and the “Textbook” Centre for use in courses of natural subjects in secondary schools of Kazakhstan. At the moment, there is an insufficient amount of funds from the state budget allocated for the development, production and publishing of teaching and methodological materials on ESD. Thus, due to the lack of state funds for publishing of already developed materials on ESD (please, see above), teachers and students of most of the secondary schools do not have an opportunity to access them. However, these teaching and methodology materials on ESD are regularly published in small numbers, both at oblast level and in experimental schools of Kazakhstan, due to support of donors, NGOs and the implementation of common international projects. There is a certain role played by the oblast foundations of environmental protection (for instance, in Karaganda oblast) in preparation and publishing of these materials, which provides feasible support to NGOs and innovative teachers for introduction and dissemination of teaching materials.

At the moment, the Expert Council for the revision of textbooks and curricula, as well as teaching and methodology manuals, under the Ministry of Education and Culture of Kyrgyzstan, the Scientific Council of Kyrgyz Academy of Education, periodically reviews and recommends for publishing teaching methods and materials on some ESD aspects. There is no opportunity to publish recommended materials due to limited funds. Nevertheless, teaching and methodology materials on ESD issues are regularly published in the Republic due to the activity of international projects and public organisations. There is also a lack of state funds allocated for the provision of educational institutions with the required quantity of textbooks, teaching and methodology manuals on different ESD aspects. The Republican Foundation of Environmental Protection functions under the State Agency on Environmental Protection and Forestry in Kyrgyzstan, where the EE budget item has some funds allocated for publishing materials on EE and some ESD aspects. At present, the state budget is not a source of funding for the ESD process in Kyrgyzstan. Most of the projects in that sphere are implemented by public organisations with the support of international donor agencies.

In Uzbekistan, there is a certain amount of work being conducted on the development and publication of teaching and methodology materials on ESD directed towards students, teachers and scientific experts at all level of the educational system and for in-house training. Thus, the Expert and Methodology Council under the Ministry of Education periodically reviews and recommends teaching materials on some ESD components for publishing. In 2005-2006, the State Nature Committee, with the assistance of the UNDP Office in Uzbekistan, based on EIK “Chinor”, has published a number of books and reports on EE and ESD in order to implement that task and increase awareness and develop environmental education of the general public. The Ministry of HEI of the Republic has also published a number of textbooks recommended for students and teachers. In addition, Uzbekistan has a teaching manual for primary school teachers called, “Environmental up-bringing and education in primary school” developed with direct support of the State Nature Committee, the UNDP Representative Office and the US Embassy in Uzbekistan. At the moment, the development process of the textbooks and exercises books on environment for primary school takes place based on that manual.

4.6. Non-formal ESD in CA countries

Central Asia has had significant experience on the implementation of projects for non-formal and unpremeditated education with the participation of different stakeholders based on principles of
interdepartmental, inter-sectoral and international cooperation. Non-formal ESD is implemented preferably through non-governmental organisations (NGOs) and non-commercial organizations (NCOs) in the Republic of Uzbekistan.

For instance, in 2001, a number of NGOs in Central Asia have received an invitation for the Norway Society of Nature Protection to participate in an energy and resource saving programme for school children within the activity of SPARE. A teacher’s manual was prepared containing easy explanations and using common examples of how to achieve resource savings in daily life. At the moment, Central Asia actively participates and jointly implements projects from the coordinators’ network of the project, working in the energy saving sphere and ESD.

At the present time, key statements of SD are promoted through the “EcoSchools of Kazakhstan” project in secondary schools of some of the regions of Kazakhstan. It is a result of the joint activity of the public organisation “EcoObraz” (Karaganda, Kazakhstan) and the NGO Field Study Council (UK), and it is based on the experience of the Foundation for Environmental Education, which has been coordinating the “EcoSchools” project in 21 European countries for many years. Participating schools of the network are trying to decrease their negative influence on the environment and to assist in sustainable development.

Such CA NGOs actively working in the ESD sphere include the youth organisation “BIOM” (Kyrgyz Republic), “EcoCenter”, “EcoObraz”, “TAU” (Kazakhstan), Youth EcoCenter “Tabiat”, “For the Earth” (Tajikistan), “Nature Protection of Turkmenistan”, “Ekofergana”, “EcoMaktab” (Uzbekistan) and others, take an active part in the implementation of different projects on ESD within the framework of the CAREC CA EE Programme for SD.

However, despite some successful projects and achievements by Central Asia on ESD, it should be stated that purposeful activity on the promotion of ESD into the educational systems of CA countries is insufficient. SD topics and ESD principles are insufficiently represented or not represented at all in the state standards of education; and some majors, disciplines and topics do not provide a joint system oriented towards SD and are implemented out of context of the main objectives and principles of ESD.

4.7. Integration of national ethical values and traditions into the CA education systems in the context of ESD

The quality of content of modern education will be defined not only by its saturation by knowledge or key competences, but also by its ability to encourage processes of personal development and to set up integrative connections between main spheres of life of an individual, i.e. values and motivations, emotions and will, as well as activity and behavior.

Principles of creating an educational system will be its humanity, harmony, democracy, personal-orientation, congruity with nature, cultural congruity, distinctiveness and continuity.

Therefore, one of the main prerequisites for the sustainable development of education in CA in general is integration of national, ethical and cultural values of the CA nations in ESD.

The primary goals of the new education are:
- Disclosure of genetically determined abilities of each individual and his/her cultural identification;
- Socialisation of individual;
- Actualisation of fundamental education;
- Forming of the individual’s ability to active, origination, creative and transforming activity;
- Inculcation of love for the environment;
- Development of the ability to acquire national and universal cultural values.

A way out of the existing crisis situation is studied by CA scientists, representatives of the Kazakh Academy of Education of Kazakhstan, named after I. Altynsarin, for the development of the ESD system in CA countries, i.e. a complex, integrated educational and up-brining system based on the paradigm of a natural and cultural congruent pedagogy. In a meantime, the main mission of
education is not the translation of socio-cultural norms and completed scientific knowledge, but the up-brining of individuals able to orient themselves in complicated socio-cultural environments, the introduction of human development to the sphere of spiritual and ethical values, creativity and the provision of the sustainable development of intellectual, ethical and spiritual capacity of an individual.

The following is proposed in order to complete that:
- To adopt the ethnic psychology and pedagogy of CA nations and the ethical values, rich cultural and historical heritage and traditions of CA nations as a philosophic base and methodological platform for ESD,
- To fully integrate into educational content the ethical heritage of great nationalists of the East, such as Abu Nasr Al-Farabi, Korky Ata, Asan Kaigy, Makhmut Kashgari, Khaidar Dulati, Zhusip Balasaguni, along with the titanic philosophic and poetic heritage of Abay and Shakarim, as well as other classicists of literature; national folklore, classic literature, people’s tradition, people’s music and art;
- To analyse and colligate separate materials and author’s programmes possessed in CA into curricula in order to introduce integrated meta-subject on the ethical and cultural up-brining of students;
- To assist in the increase in the number of subjects of a cultural and humanitarian character into the basic curricula of the secondary education systems of CA countries; to provide and utilize broader courses devoted to introducing students to the masterpieces of national and world culture;
- To develop scientific, teaching and methodological complexes on the introduction of ethical, national and cultural values, as well as universal values, into ESD for pedagogic staff of the education systems;
- To develop a complex of basic and additional literature, interactive electronic and audio-video manuals for students, teachers and parents;
- To colligate experiences of other countries: China, Finland, Japan, Singapore and Turkey in particular, on the methodology of integration of ethical, national and cultural, as well as universal values, into ESD;
- To conduct training and re-training of pedagogic staff and experimental work in educational institutions on the integration of issues of ethical, national and cultural, as well as universal values, into ESD through residency courses, scientific and methodological seminars and trainings.

5. ACHIEVEMENTS AND GOOD PRACTICES OF ESD IN CENTRAL ASIAN COUNTRIES

It could be outlined today that almost all of the CA countries started implementing the process of the UNECE Strategy on ESD; CA countries have prepared their progress reports and it is clear from them that they are situated at varying stages.

During recent years, Central Asia has achieved significant results within ESD sphere:
- We have created and developed a coordination mechanism of EE and ESD process in CA countries and involved all stakeholders, including Ministries of Education and Environment, scientific institutions, educational institutions, public and international organisations.
- We take an active part in similar processes within the European and Asian regions, and we consider it as a unique opportunity for the coordination and integration of subregional programmes with global and regional initiatives.
- We observe sustainability of EE and ESD processes in Central Asia and possess good practices in the area of annual conferences on EE and ESD (Dushanbe-2002, Bishkek-2003, Almaty-2004, Almaty-2005 and Bishkek-2006) and we embrace its further development and support by all stakeholders.
- The CA EE Programme provides **practical support for educational institutions, ministries and NGOs** in CA countries, including new manuals, educational, methodological and informational materials, trainings and projects.

- With support of OSCE centers in CA countries, we created in 2004-2005 *EE Centres in the Kyrgyz Republic and the Republic of Tajikistan* and, as a result of effective work with donors and partners, an informational and educational centre has been created in Turkmenistan, supporting educational programmes at national and local levels.

- In 2007, the Regional Expertise Centre (REC) on ESD was created in Bishkek under the support of the UN University, the Institute of Advanced Studies (UNU/IAS), based in the Bishkek Humanitarian University.

- Initiatives on the dissemination of information were started in Tajikistan, as well as preparation of publications in the state language and the conducting of educational seminars and trainings on the Earth Charter, based on SD principles and ethical norms of relation to the Earth.

- We are strengthening cooperation on EE and ESD with our partners – the UNECE, the European Commission, the UNESCO Cluster Bureau in Central Asia, the UNESCO Regional Bureau in Bangkok, OSCE Centers, UNU/IAS and other international organisations and embassies of donor countries in Central Asia.

**We ALREADY have initial achievements in the implementation of the UNECE Strategy on ESD in CA:**

- From 2005, the Coordination Council on ESD started working at the Governmental level in Kyrgyz Republic, for development of ESD issues and implementation of the UNECE Strategy on ESD. Amendments were submitted on ESD and EE into the draft of the Eco-Code of Kyrgyzstan in 2007.

- From November, 2005, the Programme and the Concept, “On the development of EE, training and re-training of eco-personnel as well perspectives of improvement of residency training in the Republic of Uzbekistan” are being implemented in the Republic of Uzbekistan in order to implement the UNECE Strategy on ESD. An active role in that process is also being played by the Coordination Group created by the community.

- In December 2005, the network on EE and ESD was created in the Republic of Uzbekistan; mechanism of coordination of general informational of the CAREC Representative Office in RU, the Coordination Informational and Recourse Center on EE and ESD are functioning.

- Starting from December 2005, in Dushanbe, Republic of Tajikistan, the National Conference on ESD was conducted, confirming priority of EE and ESD at the state level and considering issues of implementation of the UNECE Strategy on ESD in the country; there is an active process for the introduction of ESD.

- In 2006, Central Asia prepared its first general subregional “Progress Report on ESD in Central Asia”, based on indicators of ESD and developed by the UNECE Expert Group and with support of the international consultant, Laima Galkute, a member of the UNECE EG on ESD indicators.

- In 2007, according to the request of the UNECE Secretariat on ESD, the CA countries prepared national reports on the implementation of the UNECE Strategy on ESD, which have served as the main preparation of the general report of the UNECE on the implementation of the Strategy in the UNECE region, which will be presented in Belgrade.

- In Kazakhstan, the President adopted the “Concept of Transfer to Sustainable Development for 2007-2024” and the Action Plan on the implementation of the Concept. The Plan includes issues of residency and training on SD and the introduction of ESD into curricula and programmes. In April 2007, issues on the introduction of ESD into the educational system, preparation of the Belgrade Ministerial Conference and reporting on ESD were considered at the third meeting of the Council on SD for Kazakhstan, under the guidance of the Prime Minister.

- In most of the CA countries, the UNECE Strategy on ESD has been translated into state languages and published as separate publications.
At the moment, projects are planned as well as implemented in Central Asia on the implementation of the UNECE Strategy on ESD and the development of the National Plans on ESD in accordance with international obligations and national priorities and needs.

Cooperation of CAREC with the Regional Environmental Centre of Central and Eastern Europe (REC CEE), in the sphere of ESD, in particular, common projects are planned for development and adaptation of REC CEE educational resource Green Pack in Kazakhstan and Kyrgyzstan and capacity building of state officials in the sphere of sustainable development.

One of the good practices examples of the introduction of SD topics and ESD principles/methods into educational processes is the project, “Promotion of ESD into the system of higher education in Kazakhstan”, started in April 2007, which is a logical follow-up of the project, “Promotion of ESD into formal and informal education of Kazakhstan”, implemented by CAREC under the support of the OSCE Centre in Almaty in 2006.

“ESD-2006” has produced a final result on the procedures and content of the State Standards for higher education in Kazakhstan. The analysis and prepared Recommendations on the improvement of standards in system of higher education; scientists of the leading IHE of Kazakhstan (Kazakh National University, Pavlodar State Pedagogic Institute, Eurasian University, North Kazakhstan University and others) served as a base for the new project on ESD in 2007. A decision was made to develop an ESD model in IHE, including methodology manuals and practical examples by using the example of the pilot project in one of the pedagogic IHE, due to the fact that it is not easy to submit amendments to existing state standards of higher education. An additional value of the project will contain a provision for education for future teachers and capacity building of the existing master staff of IHE. Pavlodar State Pedagogic Institute (PSPI) was proposed as a pilot institution for the development of the ESD strategy for IHE.

Goals of the project: Promotion of ESD into the system of higher education of the Republic of Kazakhstan through the introduction of special courses on ESD at bachelor’s and master’s levels, as well as recommendations of key topics on ESD based on the inter-disciplinary principle in PSPI.

Aims of the project: to promote legal and institutional frameworks for the introduction of ESD courses in IHE; to provide IHE educators with knowledge and skills for ESD teaching; to conduct a study of the connection between ESD competencies and national cultural traditions and ethical philosophy in the context of the educational system of Kazakhstan; to disseminate experience of the project between stakeholders and corresponding target groups in Kazakhstan and Central Asia.

Special courses set up within the frameworks of curricula of 19 majors of the Master’s Programme of the PSPI, where ESD topics could include the introduction of ESD topics based on an inter-disciplinary approach: Business and Management, Management, Education Quality Management System, Modern Educational Technologies, Educational information and problems of education, Methodological problems of professional and pedagogic education, Theoretic and methodological problems of geography, challenges of natural resource use in economic and social geography, Physiological basis for athletic training management in charge with PE, Modern problems of physical, social and economic geography, Environment and biodiversity preservation, Fundamental problems of World history, Modern theories of evolution.

The following activities have already been implemented by the project:
1. Two curricula have been selected from 25 majors of the bachelor’s programme of the PSPI (Biology 050607 and 050113), which will be recommended for approbation and further facultative/mandatory introduction of the new ESD course, developed within the framework of the project, i.e. “Environment and SD”.
2. Identified courses which will contain specific ESD topics.
3. Developed a joint strategy of the Working Group of the project on development of the new course curricula, “Environment and SD”. Started a common effort on the development of the content of the Curricula.
4. Discussed and recommended tests for analysis of world view opinions on ESD amongst teachers/students of PSPI at “enter in and out” of ESD studying.
Recommendations on integration of national ethical values and traditions into the education system of Kazakhstan in the context of ESD, which will be disseminated in all CA countries, to be directed to the Ministry of Education and Science, are prepared within the framework of the project.

6. FUTURE PROSPECTS AND NEEDS IN FINANCIAL SUPPORT OF THE ESD PROCESS IN CA

There is a need for the development of international cooperation and sustainable support of the ESD process in CA. Budget funds for education and enlightenment and funds for international projects on ESD, provided by international organisations and funds, donor countries and partners can become sources of funding for National Action Plans on orientation of education systems for sustainable development.

Based on an analysis of the implementation of the UNECE Strategy on ESD in CA countries, in general, promotion of ESD into a theory of practice of life in the region, it is possible to make outlines on further development of ESD in Central Asia, strengthening of international cooperation both in the UNECE region and Asian-Pacific region and taking into consideration the active participation of Central Asia in both processes.

A multi-sided partnership involving a wide circle of parties involved into ESD process in CA (Governments, scientists, educational institutions, international organisations, business, and mass media) is relevant for CA at the moment to assist in the development of human resources and capacity within the ESD sphere in the subregion. It fully corresponds with the goals and aims of the CA Initiative, devoted to strengthening cooperation mechanisms, the setting up of partner relations between states, the private sector and international and public organisations for the achievement of common goals for sustainable development in Central Asia. In broad terms, international cooperation in Central Asia on ESD is both a new challenge and a new opportunity to strengthen mutual understanding and cooperation between CA nations and therefore, to make a contribution towards peace, safety and well-being.

However, it has to be highlighted today that, despite the achievements and successes in the implementation of the UNECE Strategy on ESD, the CA EE Programme and, in fact, all of the activities on ESD in Central Asia, still depend on external funding, and so far the countries are not able to fully implement the UNECE Strategy on ESD. Due to the fact that the ESD process requires financial support, but still is not sufficiently supported by donors, we are worried about the further sustainability of the process in Central Asia, and we again refer to the international community for support of the subregional processes and initiatives on ESD. CA countries, as countries with economies in transition, need financial support for the implementation of the UNECE Strategy on ESD, at least for the first stage of its implementation.

Understanding that responsibility for implementation of the Strategy on ESD lies with the countries, and national Governments are in charge of main flow, nevertheless, CA calls for donor community, international organisations and our partners to support further implementation of the UNECE Strategy on ESD in Central Asia, that is:

1. To consider the CA subregion as a pilot subregion for implementation of the UNECE Strategy on ESD, taking into consideration the experience gained from the pilot projects on ESD in 2006-2007, coordination in CAWG on ESD, capacity on ESD and readiness of all stakeholders to cooperate, i.e. the states, community and educational sector.

2. To provide assistance in setting up an overall subregional project for the implementation of the UNECE Strategy on ESD in Central Asia and preparation for the first mandatory report in 2010: the development of national plans on ESD, reforming of modern education systems with a strengthening of the role and status of ESD programmes, and further evaluation and monitoring of the processes through the assessment of indicators of the Strategy’s implementation developed by the expert group.
7. CONCLUSION

The development of the education systems, assisting Central Asian countries to transfer to sustainable development, should be focused on the following long-term priorities:

- Increase in the quality of education and curricula at all levels and stages of formal and non-formal education; pre-schools, school and higher professional education;
- Capacity building (trainings and re-trainings) of professional staff, providing competitive ability of experts on domestic and international labor markets and their awareness of trends in national and international development, accessibility of additional professional education for adults;
- Creation of a learning community, where activity is implemented based on knowledge, skills, values and opinions, providing sustainable implementation of the goals of social and economic development as well as safety of environment.

In addition, the specific distinction of all CA countries from the other countries of the UNECE region is a started process of evaluation of ethical, national and cultural values and traditions of Eastern nations and their integration into the education systems of CA countries. As a result, a complex set of teaching literature, interactive electronic, audio, video manuals needs to be developed; to collect and assess the experience of China, Finland, Japan, Singapore and Turkey on the methodology of integration of ethical, national, cultural and universal values into education systems of the countries.

Therefore, based on the study conducted on ESD conditions, it can be stressed today that the CA subregion has achieved significant progress towards education for sustainable development on the global, regional (Europe and Asia), subregional and national levels; therefore, we are provided with an opportunity to face new challenges in the ESD sphere and utilise the best experience and achievements of the international community in Central Asia in a more sufficient way.