



The Republic of Montenegro
The Government of the Republic of
Montenegro

Action plan
Integration of sustainable development
into educational system
2007-2009

PODGORICA
2007

This Action plan was developed by *Ministry of Education and Science, Bureau for Educational Services, Centre for Vocational Education, Examination Centre and Institute for Textbooks and Teacher Aids*, with the support of **Foundation** Open Society Institute, Representative Montenegro.

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1. INTRODUCTION

The aim of developing *Action plan* is to create conditions for planned introduction of sustainable development contents into our educational system. This Action plan plans, defines and connects activities of educational institutions in the area of implementing sustainable development into educational system in the next three-year period. It defines tasks, roles, dynamics and required financial resources of educational institutions responsible for delivering envisaged activities. *Action plan* is brought in line with principles and goals of UN Strategy, National strategy for sustainable development, as well as with those principles and goals given in the key documents of educational reform implementation. Because of the significance that education for sustainable development has in overall development of a society, this *Action plan* is to be added as an annex to the **Strategic plan for education reform for the period of 2005 – 2009**, which plans achievement of short-term, mid-term and long-term reform goals in the next period. During the implementation, special attention is to be given to the principles set in international conventions and declarations in the field of education.

In times of rapid societal changes, it is of a great importance to develop awareness about the importance of sustainable development concept at all levels of education. United Nations declared the 2005 – 2014 decade as a decade of **Education for sustainable development**, and the United Nations Economic Commission for Europe (UNECE), on the meeting of ministers for education and environment held in Vilnius 17-18. March 2005, approved the **Strategy for education for sustainable development**. The process of developing **National strategy for sustainable development of Montenegro** recognized educational sector through two priority goals:

- **Achieving quality education for all; achieving Millennium Development Goals and goals from the National Plan of Action for Children.**
- **Increasing thematic contents of sustainable development in curricula from preschool to the university level.**

Montenegrin educational system is going through systemic changes in recent years as an answer to social reality which asks for changes in education, its adjustment and cooperation with other countries in the region and wider. One of very important aims of the ongoing educational reform in Montenegro is to produce, through formal primary and secondary education system, such personalities that will respect and in future appreciate, understand and implement basic principles and adopted concept of sustainable development in Montenegro.

Developed new curricula for primary schools, secondary vocational schools and high schools imply obtaining knowledge, skills and competences oriented towards achieving important economical, social and environmental goals.

Implementation of new curricula is going on in line with dynamics of the reform plan and so far, it involved the greatest part of primary and secondary schools. In the school year of 2004/05 the implementation started in 20 primary schools (A group of schools), in 2005/06 – in 27 primary schools (B group of schools), in 2006/07 year – 28 (C group), while in the school year 2007/08 the reform implementation will start in 44 primary schools. According to plan, new curricula will comprise all pupils in the grades from first to ninth until the end of school year 2013/14.

According to what was planned within adopted Millennium Development Goals and National Plan of Action for Children, activities of the Ministry of Education and Science, schools, Parents' Association and local community for ensuring conditions for implementation of the new 9-year Curriculum for primary schools should bring to increase in the enrolment rate of children from 96.9% in 2002 to 97.6% in 2005 and up to 99% in 2015.

In 2006/07 school year, all high schools (22) started with implementation of the new Curriculum. New High school Curriculum abolished separate orientations but elective subjects that students choose in a way create

their orientation. The first external Matura Exam is to be held in 2009/10 and the Examination Centre of Montenegro will be the organizer.

By school year 2007/08, the reform will cover 119 primary schools and all classes of 1st and 2nd grade of high schools in Montenegro. In 2007 within 47 primary schools that are working by new 9-year Curriculum a pilot testing in Mathematics and Mother Tongue is going to be conducted for 3rd grade pupils, and for 6th grade pupils in Mathematics, Mother Tongue and Foreign Language. Beside external exams, the Examination Centre organizes and conducts external Matura Exam in all high schools in Montenegro. In addition, 26 secondary vocational schools deliver instruction in line with the new Curriculum.

Education is an evident factor and a premise of economic growth and of social, environmental, cultural and ethical vision of sustainable development of Montenegro. In future, the progress of a society must rest upon knowledge that respects principles of sustainable development of society.

Educational system reform should upgrade educational level of population with the clear awareness of how important is sustainable development in the process of European integration. Such a reform is to be carried out in a gradual, systematic and comprehensive manner.

New Curricula are modernized and adjusted to contemporary requirements in that field in Europe. They are built in a function of a goal-oriented planning of contents and teachers themselves can choose methods and activities by which the goals can be best achieved. New subject curricula are opened – teachers themselves, pupils and schools in cooperation with the local community, can create around 20% of contents. The percentage of sustainable development contents within new subject curricula is very high.

Compulsory elective subjects are introduced in primary schools, high schools and secondary vocational schools. Pupils have the chance to choose a certain number of subjects in which they can best express their creativity and satisfy their interests.

When it comes to general high school, pupils in a way by choosing compulsory elective subjects create their own “orientation” and that way they actively influence the formation of their own professional orientation. Through compulsory elective subjects, teachers are promoting areas in which they are qualified.

Within four-year vocational education, elective instruction is determined by educational programmes offering pupils to choose certain subjects or group of subjects, which provide general education, or specific and more profound professional knowledge. In three-year vocational education, special attention is given to practical instruction, which has a certain number of courses and through which pupils gain practical knowledge and skills necessary for doing certain jobs. Three-year vocational education is organized through school form and dual form of education.

Considering that the world is for a long time now aware of life-long learning and education necessity and with the aim of establishing education system which guaranties overall economic and social development, special attention is given to adult education through introducing and developing new curricula for adults.

Bureau for Educational Services and Centre for Vocational Education conducted a survey (detailed analysis) of reformed subject curricula from preschool to university level of education with the aim of **increasing thematic contents of sustainable development in curricula**. Contents of sustainable development are emphasized through operational aims for a given theme, activities that follow that theme, and also given are expressions, which appear in certain theme of instruction. After analyzing each subject curricula, estimation of contents dealing with sustainable development is made.

The following step would be to **develop programmes** for primary schools, high schools and secondary vocational schools that could be offered as a separate elective subject, within practical instruction or within contents of existing subject curricula from preschool to university level.

In order to capacitate students for building certain attitudes and abilities necessary for comprehension and respect of mutual connections between man and environment and overall consideration of a concept, process or a problem, a certain multidisciplinary approach to instruction is needed which demands good subject correlations.

Nine-year primary school Plan, within compulsory activities, envisages 10 days for culture, sports, technology and school at outdoors. It means that there is a possibility to organize instruction out of the classroom, in the nature or at institutions such as museums, galleries, archives and libraries. The concept of project – school at outdoors, should give pupils a chance to get to know cultural and historical heritage and natural beauties of their homeland in a continuous, quality and interesting manner.

Quality programme realization is not possible to achieve without **trained teachers and adequate teacher aids**. Beforehand, it is necessary to develop training programme for teachers who are instructing under new educational curricula, capacitate trainers, develop a small pilot-project that will test the training model with a small cohort of teachers and afterwards in line with activities envisaged by *Action plan* start with the training of teachers.

Bureau for Educational Services and Centre for Vocational Education are the organizers of teacher training for realization of new curricula while Examination Centre organizes training for test authors and training for administering exams.

A significant number of hours within training programmes are given to the presentation of new curricula. Namely, new curricula are largely different when comparing with old ones. While the old ones were prescribing a content that children are to learn, the new ones are setting goals that are to be achieved. Furthermore, they are suggesting certain activities that enable active gaining of knowledge, which is a premise for obtained knowledge to be applicable, quality and permanent.

After finishing this training, teachers are qualified to apply new methods and forms of work during the realization of instruction, while the problem of sustainability remains aside.

Trainers who are running seminars lack clear vision of how to familiarize teachers with contents of sustainable development. It is very important to raise the awareness among teachers about valuation of these contents for each different subject. Trainers also need to have special knowledge in order to train teachers who are to realize instruction of contents within compulsory elective subjects.

Interactive training implies exchange (of experiences, knowledge, beliefs and needs between leaders and participants, as well as among participants), connecting with own experiences and practise (reflection of experiences and practice, application and a change of practice), cooperation and partnership (cooperative learning and relationship based on equality, complementarity, competence and respect). Basic conceptual starting point of this training is a category of diversity in the process of learning.

In order to organize and realize this kind of training, a trainer should have additional knowledge and skills in the area of sustainable development for which she/he also should go through adequate training. During this training, trainers will affirm knowledge and skills that they already have and gain new knowledge and skills especially those ones referring to the significance of education for sustainable development.

Reform of educational system in Montenegro implies that all the pupils in primary and secondary schools should gain literacy in informational technologies, that after delivery of teacher training computers will be used as one of the basic didactical means, as well as that all the data on teaching and schooling will be connected. **Strategy for introducing ICT in educational system** defines all the activities that provide for use of computers in instruction in all primary and secondary schools.

ICT teacher training is the most important in overall project because the process of professional development of teachers is the key factor for improvement of instruction.

As we have quality equipped computer classrooms in all schools in Montenegro application of ICT, introducing of E-learning and Distance learning by means of videoconference system completely provides for sustainable teacher training system and quality implementation of educational system reform.

Pupils of the finishing grade of all Montenegrin high schools, which entered the 1st grade of high school in 2006, shall be the first generation to pass the external Matura exam in 2010.

Law on education for children with special needs was adopted in December 2004 and during its implementation, a significant increase in the coverage of children with special needs in mainstream schools is recorded. However, the problem of insufficient skills and experience of teachers for work with children with special needs remains present.

The area of inclusive education should become an integral part of the programme for professional development of teachers in order to capacitate teachers for work with this group of children. Another and not less important aim is to increase awareness and knowledge about education of children with special needs among school principals and educational professionals in order to capacitate them to make informed decisions when creating educational practise in fields of leadership, management, administration and financing. Very important goal is adequate equipping of schools and other institutions with infrastructure necessary for children with special needs, alignment with legal norms, and development of individual programmes as well as adequate capacitating of teachers for the purpose of assessing children with special needs. The Examination Centre will produce tests adjusted for children with special needs in line with the Individual training programme.

Development and application of teacher aids is very important for understanding, learning and adopting these contents (textbooks, handbooks, magazines, computers, videotapes, projectors, media materials).

Textbook as a primary teacher aid and a part of comprehensive reform education, of course, has an important role in realization of programmes in the area of **sustainable development**. Doubtless, themes related to this area are far more present in textbooks, which resulted in a large number of projects in the field of environment and sustainable development. This fact gave additional impulse to familiarization of children with different cultures, new comprehension of significance that environment has, more refined respect of the environment, as well as adoption of new criteria and standards.

Since December 2004 Institute for Textbooks and Teacher Aids – Podgorica is publishing magazine National Geographic Junior for Montenegro intended for children in primary schools. The magazine includes themes from biology, geography, ecology, history, archaeology as well as contents of amusing character. The mission that powers this magazine is to familiarize children with the world's different cultures, as well as to make possible for children to gain interactively, through games and fun, knowledge about world of vegetation, animals, archaeology, geography...

As the realization of such a complex task needs including of wider social public, it is necessary to run a quality media campaign, create several scientific and educational shows, design web site about sustainable development as well as promotional materials (brochures, posters...).

Projects that NGOs conduct are also very important when it comes to introduction of this area into educational process.

Supplement 2.2

2.2 Cooperation with target groups and informing public

As Strategy of Education for Sustainable Development involves ecological, economic and social aspects of environment it is necessary to set up clear procedures of cooperation between relevant ministries.

Raising public awareness and understanding about introduction of sustainable development into educational system depends largely on a carefully designed media plan and attracting interest of professional public, pupils and parents. Well-timed, targeted and planned presentation asserts itself as one of main prerequisites for effective application of these contents. Therefore, it is crucial to have a clear conception of relationship towards media, well-trained human resources for implementation and designed strategy for its realization.

Guidelines for instruction, didactic and methodical guidelines, publications of educational researches results, web site, translating foreign magazines and publications should offer comprehensible and transparent insight for all the participants of educational process.

Also important is to define rules of cooperation with NGOs, different associations and voluntary organizations. This is something that is supposed to allow permanent carrying out of projects offered by NGO sector.

Main goals until 2009

- „ To set up procedures of cooperation between ministerial work groups.
- „ To achieve satisfying level of information about sustainable development in all segments of society.
- „ Institutional and systematic implementation of programmes offered by NGOs.
- „ To capacitate human resources for public campaign.
- „ To implement programmes with the help of volunteers associations.
- „ To acquaint public (schools, students, parents, teachers and wider public) with the need of national assessment of knowledge and external testing.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ Number of projects being realized in cooperation of two or more ministries.
- „ Number of publications, magazines, brochures, posters.
- „ Number of projects being realized by NGOs.
- „ Number of public appearances.

Presumptions and risks

- „ Active participation of different ministries.
- „ Insufficient readiness of media for this theme.
- „ Forming voluntary associations.

Terms and determinants – Cooperation with target groups and informing public

PHASES/DETERMINANTS		2007	2008	2009
1.	Setting up cooperation with relevant ministries (to design protocol on cooperation)			
2.	Realization of NGOs` projects			
3.	Capacitating human resources for public campaign			
4.	Designing magazines, publications, brochures, posters			
5.	Acquainting public with ongoing changes in education			

Budget – Cooperation with target groups and informing public

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Setting up cooperation with relevant ministries (to design protocol on cooperation)	3500	2000	2000	7500
2. Realization of NGOs` projects	5000	6000	7000	18000
3. Capacitating human resources for public campaign	5000	5000		10000
4. Designing magazines, publications, brochures, posters	5000	5000	5000	15000
5. Acquainting public with ongoing changes in education	1000	2000	2000	5000
TOTAL	19500	20000	16000	55500

Supplement 2.3.

2.3 Monitoring and evaluation of educational reform

Reviewing characteristics and effects of educational programmes, as well as making them aligned with changes in education is the best way to influence directly the improvement of educational process.

Main goals until 2009

- „ To improve the process of sustainable development implementation
- „ To develop methodology for continuous and objective monitoring of educational programmes realization

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ The system of indicators and descriptors is used during the supervision
- „ Schools are using information about monitoring when planning and making decisions concerning improvement of education for sustainable development

Presumptions and risks

- „ Insufficient/inadequate training of evaluators
- „ Material and technical conditions for proper introducing and implementation of National strategy for sustainable development of Montenegro.

Terms and determinants – Monitoring and evaluation of educational reform

PHASES/DETERMINANTS	2007	2008	2009
1. Evaluation of educational programmes and achievements			
2. Development of the system of indicators			
3. Development of the system of descriptors			

Budget – Monitoring and evaluation of educational reform

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Evaluation of educational programmes and achievements	8000	16526	16526	41052
2. Development of the system of indicators	1000			1000
3. Development of the system of descriptors	1000			1000
TOTAL	10000	16526	16526	43052

Supplement 3.4

3.4 Further training and continuous professional development

It is necessary to develop further the established system of training which timely prepares teachers for implementation of new curricula. Continuous professional development should involve not only teachers, who implement new curricula, but also teachers, professional associates, school principals and deputy school principals of those schools that are not yet started with the reform implementation.

Main goals until 2009

- " To develop sustainable system of continuous professional development of teachers, school principals, deputy school principals and professional associates in Montenegro
- " To train teachers for implementation of sustainable development contents
- " To publish training programme in the catalogue of programmes for teachers promoted posts
- " To improve cooperation with other institutions which are educating teachers (faculties, other organizations)

Strategies

- " Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- " Implementation of Strategy for continuous professional development of teachers in Montenegro for the period of 2005 – 2009.
- " Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- " Trainers have the knowledge and skills they need to successfully introduce sustainable development into educational system.
- " Developed training programme provides teachers with sufficient knowledge, skills and competences.
- " After finishing the training teachers are successful when implementing contents of sustainable development
- " Teachers are progressing within their professions.

Presumptions and risks

- " Not all teachers and school principals received training necessary for realization of new curricula.
- " Established cooperation between institutions of initial teacher training in Montenegro with other institutions that also deliver teacher training.

Terms and determinants – Further training and continuous professional development

PHASES/DETERMINANTS	2007	2008	2009
1. Developing teacher training programme			▲
2. Piloting teacher training programme			▲
3. Introducing contents of sustainable development into training programme for school principals			
4. Trainer training (from all the levels of education)			▲
5. Training of preschool teachers			
6. Training of primary school teachers			
7. Training of high school teachers			
8. Training of teachers in secondary vocational education			
9. School principals training			
10. Training for reviewers, coordinators, curricula commissions and associates engaged in national assessment and external exams for primary schools in themes related to sustainable development within subject curricula			▲

Budget – Further training and continuous professional development

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Developing teacher training programme	16333			16333
2. Piloting teacher training programme	4160			4160
3. Introducing contents of sustainable development into training programme for school principals	5000			5000
4. Trainer training (from all the levels of education)	22590			22590
5. Training of preschool teachers		24500	24500	49000
6. Training of primary school teachers		31500	31500	63000
7. Training of high school teachers		25000	25000	50000
8. Training of teachers in secondary vocational education		30000	30000	60000
9. School principals training		10000	10000	20000
10. Training for reviewers, coordinators, curricula commissions and associates engaged in national assessment and external exams for primary schools in themes related to sustainable development within subject curricula	20000	10000	10000	40000
TOTAL	68083	131000	131000	330083

Supplement 3.5.

3.5 Integrating ICT into educational process

Equipping educational institutions, ICT training for teachers and introducing new subjects are key activities of reform implementation, which are meant to make it possible for students to gain necessary **ICT literacy** during **regular schooling** in **primary** and **secondary education**. With the aim of developing ICT literacy in line with new curricula, we introduced new compulsory subjects (Technology and Informatics for primary and Informatics for high school). We also introduced elective subjects – 3 new subjects in primary school and five new subjects in high school and secondary vocational schools (Business Informatics, Multimedia Web Presentations, Algorithm and programming, Web Programming and Databases, Computer System Engineering).

ICT teacher training is the most important link in overall project because the process of professional development of teachers is the key factor of improving the process of instruction. Introducing E-learning and Distance learning with the means of videoconference system fully provides for sustainability of ICT system in schools, sustainable system of teacher training and quality implementation of educational reform.

Main goals until 2009

- „ To ensure sustainable system of teacher training and thus provide quality implementation of educational system reform.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ Number of teachers which during realization of new curricula apply ICT when teaching

Presumptions and risks

- „ Insufficient capacities among teaching professionals to use ICT

Terms and determinants – Integrating ICT into educational process

PHASES/DETERMINANTS	2007	2008	2009
1. Equipping central locations			▲
2. Equipping classrooms			
3. ICT teacher training			

Budget – Integrating ICT into educational process

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Equipping central locations	50000	50000		100000
2. Equipping classrooms	100000	100000	100000	300000
3. ICT teacher training	10000	10000	10000	30000
TOTAL	160000	160000	110000	430000

Supplement 3.6.

3.6 Inclusion

Educational reform in Montenegro introduced a completely new concept of inclusive education that implies integration and schooling of children with special needs in mainstream schools. This modern concept provides for “equal education accessibility for all children” which is one of the basic goals of education. In order to apply this concept of inclusive education, the Law on education of children with special needs is adopted, mobile teams are formed and their activities should be supported in future period. In the forthcoming period of implementation, it is very important to, through public campaigns, involving parents and teacher training, give a special accent to support of inclusive education implementation so that students, which are experiencing difficulties in learning, could gain from individualized approaches and teaching methods of student-oriented instruction. Very important are the following three components: development of policy in the field of education of children with special needs and inclusive education, supporting Faculty of philosophy with education of children with special needs and inclusive education and support of MoES and Bureau for Educational Services in developing in-service teacher training in the area of education of these children. Furthermore, database is established that monitors education of children with special needs, as well as their further inclusion in community.

Law on education for children with special needs was adopted in December 2004 and during its implementation, a significant increase in the coverage of children with special needs in mainstream schools is recorded. However, the problem of insufficient skills and experience of teachers for work with children with special needs remains present. This project is going to ensure training of school professional teams for inclusive education in 40 schools. Teams will be consisting of 2 teachers, school psychologist, school pedagogue, principal and deputy principal (240 persons in total). Project will also ensure training of municipal officers for education in all 21 municipalities in Montenegro.

Main goals until 2009

- „ To ensure that education of children with special needs and inclusive education become a part of programme for continuous professional development of teachers in order to enable them to work with such children.
- „ To increase awareness and knowledge about education of children with special needs among school principals and educational professionals in order to capacitate them to make informed decisions when creating educational practise in fields of leadership, management, administration and financing.
- „ To create adequate conditions for testing children with special needs as well as to design adjusted tests.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ 40 properly managed inclusive primary schools that can provide competent support to the learning process of all children as well as of children with special needs.
- „ Students with special needs tested in line with the standards from individual educational programmes.

Presumptions and risks

- „ All teachers and school principals are not adequately prepared and trained to work by new educational Curricula.
- „ Lack of cooperation between Ministry of Education and Science and Ministry of Work and Social Care.

Terms and determinants – Inclusion

PHASES/DETERMINANTS	2007	2008	2009
1. Professional school teams training			
2. Municipal officers training			
3. Test authors training			▲
4. Designing individual tests			▲

Budget – Inclusion

COMPONENT	EXPENDITURE IN EUROS			
	2007	2008	2009	TOTAL
1. Professional school teams training	370000	192000	192000	754000
2. Municipal officers training	16800	16800		33600
3. Test authors training	30000	30000	30000	90000
4. Designing individual tests	50000	50000	50000	150000
TOTAL	466800	288800	272000	1027600

Supplement 3.7

3.7 Minority education

One of the most important and a basic goal of educational reform in Montenegro is to build civic society and ensure equal education **accessibility** for all children regardless of gender, **mother tongue**, social and cultural background, religion or nationality. Reformed educational system and new subject curricula of Mother Tongue, History, Music and Fine Arts are promoting multiculturalism and social cohesion. New curricula are aimed towards preparing young people for civic life in a multicultural Europe.

Special quality and a significant new thing brought by new curricula relevant for affirmation of national and cultural identity is the newly adopted concept of “integration without assimilation”. The core of adopted concept is that majority of people on a whole of Republic territory learn about literature values, history and culture of minorities in an affirmative manner. Newly adopted curricula for mother tongue, history and culture are designed as common programmes, which to a sufficient extent contain and promote themes, creators, values of literature and arts, history and culture of all peoples in Montenegro.

From the aspect of language diversity, when it comes to use of mother tongue in Montenegro, two minorities are acknowledged – Albanians and Roma.

3.7.1. Education in Albanian language as a mother tongue

Albanian people in Montenegro create a significant autochthon minority. Population Census from 2003 showed that 7.09% of population in Montenegro is of Albanian nationality. In line with the Constitution and the Law, the instruction in Albanian language as a mother tongue in Montenegrin educational system is organized at all levels of education.

For a **successful** implementation of new curricula in **Albanian language**, it is necessary to ensure:

- Translating and publishing of new curricula in Albanian language.
- Translating and publishing of new textbooks in Albanian language.

Main goals until 2009

- „ To ensure sustainable system of teacher training and thus the quality implementation of educational system reform.
- „ To ensure translation of newly adopted curricula into Albanian language.
- „ To ensure translation of textbooks for new curricula into Albanian language.

Strategies

- „ MoES and Bureau for Educational Services will organize, in line with the Strategic plan of educational reform 2005-2009, activities that will bring to progress in achieving goals from the Action plan.

Key performance indicators

- „ Number of teachers trained for implementation of new curricula.
- „ Number of textbooks for new curricula in Albanian language.
- „ New curricula translated into Albanian language.

Presumptions and risks

- Teachers and school principals did not go through training necessary for implementing new Curriculum.

Terms and determinants – Primary and secondary education in Albanian language

PHASES/DETERMINANTS	2007	2008	2009
Translating and publishing new curricula in Albanian language			
Translating and publishing new textbooks in Albanian language			
Teacher training for new curricula implementation			▲

Budget – Primary and secondary education in Albanian language

COMPONENT	EXPENDITURES IN EURO			
	2007	2008	2009	TOTAL
Translating and publishing new curricula in Albanian language	20000	25000	20000	65000
Translating and publishing new textbooks in Albanian language	100000	200000	100000	400000
Teacher training for new curricula implementation	25000	25000	25000	75000
TOTAL	145000	250000	145000	540000

3.7.2 Roma education

Even though integration of RAE students into mainstream educational system shows positive results, overall situation with regularity in attending instruction as well as literacy of RAE population in Montenegro is still not satisfying.

Population Census from 2003 showed that Roma population counts 2.061 persons or 0.42% of total population in Montenegro. Egyptians are represented by 225 persons, which is 0.04% from total population number, while 2602 citizens speak Roma as mother tongue.

The number of illiterate population shown in the results of population census is 2.35% while, according to estimations of the NGO sector, illiteracy among RAE populations goes up to 50%.

Big problem of RAE population integration is a great number of refugees and displaced RAE families in Montenegro. Problem of RAE population education in Montenegro escalated with coming of 18.047 refugees from Kosovo during war happenings in that territory in 1999. From the total number of refugees from Kosovo around 26% or approximately 4.316 persons are Roma and Egyptians. Ministry of Education and Science ensured equal education accessibility for all children who had status of refugees and displaced persons. The enrolment of a huge number of newly settled RAE students resulted in overcrowded classrooms and lessening of teaching quality in certain schools. According to results of research conducted in 2006 by the Ministry of Education and Science and NGO sector that deals with RAE problems, within primary education in Montenegro, from the total number of RAE students almost 49% are refugees and displaced children.

Law standard of living of RAE displaced families and numeral problems related to their overall status are still limiting factors for their more successful integration into educational system.

Based on a complete insight in education of RAE population it is possible to draw a conclusion that there is no problem with integration of RAE domicile population into formal educational system and that this population is highly integrated with domicile population. Problems related to material status and educational achievements of RAE domicile population are in a close correlation with problems of other domicile population in Montenegro. However, these problems are far more present with children – students from families of RAE refugees in Montenegro. Researches that are conducted show that there is a presence of a huge ethnical distance and hostility between RAE domicile population and RAE refugees in Montenegro.

The reason of this emphasized distance between RAE domicile population and RAE refugees in Montenegro is the fact that RAE refugees with their unsuitable manner of living (begging in public places, lack of culture of living in undeveloped settlements with poor living conditions...) contribute to forming of overall negative picture of cultural and overall RAE identity with domicile population. This is one of the main reasons why a significant number of domicile RAE children in schools do not want to declare themselves as RAE.

In the next period, it is necessary to provide better conditions and support to including RAE in regular educational system as well as in training programmes in order to provide for social cohesion and sustainable social development. Through better integration in educational system, RAE population will have the opportunity to gain knowledge and skills needed at the labour market, which will help them to solve their economical status and achieve social and overall integration.

Main goals until 2009

- „ To ensure sustainable system of teacher training and thus the quality implementation of educational system reform for teachers and school principals in schools with RAE children
- „ To provide free-of-charge textbooks and cheaper textbooks for Roma children.
- „ To work on adjusting 20% of teaching contents within curricula of History, Literature, Music and Fine Arts to promote RAE
- „ To involve in designing of National Strategy for Roma.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ National Action Plan for the Decade of Roma inclusion 2005-2015.

Key performance indicators

- „ Number of teachers trained for implementation of new curricula.
- „ Number of free-of-charge textbooks given to RAE.
- „ Designed 20% of free contents within curricula of history, literature, music and fine arts and culture containing RAE information
- „ Public media campaign aimed at promotion of RAE inclusion into educational system
- „ Increase in the number of RAE children in primary and secondary education.

Presumptions and risks

- „ Teachers and school principals did not go through training necessary in order to work with marginalized groups under new curricula.
- „ Roma language is not standardized and in Montenegro, there are no educated human resources that could provide instruction in Roma language nor there is a possibility to produce textbooks in this language.
- „ Lack of reliable data (database) about RAE children of school age, which would be used for systematic monitoring of their enrolment in schools as well as monitoring their achievements.

Terms and determinants – Primary and secondary education of Roma

PHASES/SETPS	2007	2008	2009
1. Training for teachers and school principals for new curricula implementation and work with marginalized groups			
2. Number of given free-of-charge textbooks for RAE			
3. Number of subject curricula filled with 20% of free contents for RAE			▲
4. Public media campaign and publishing adequate RAE brochures, school magazines, leaflets			

Budget – Primary and secondary education of Roma

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Training for teachers and school principals for new curricula implementation and work with marginalized groups	25000	25000	25000	75000
2. Number of given free-of-charge textbooks for RAE	50000	55000	60000	165000
3. Number of subject curricula filled with 20% of free contents for RAE	8000	8000		16000
4. Public media campaign and publishing adequate RAE brochures, school magazines, leaflets	10000	10000	10000	30000
TOTAL	93000	98000	95000	286000

Supplement 3.8.

3.8 Textbooks, handbooks and other teacher aids

Realization of new curricula is not possible without adequate textbooks and handbooks for teachers. Having in mind that the thematic of sustainable development is relatively new, the textbook is getting bigger and bigger importance in the teaching process. Therefore, a textbook asserts itself not just as a liability but also as a necessity of a modern school.

Main goals until 2009

- „ To provide teacher aids (textbooks, handbooks, didactic software, magazines, brochures, videotapes, posters...) for implementation of new curricula in all educational institutions in Montenegro.
- „ To take account of contents from curricula (for compulsory and elective subjects) in teacher aids.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ The percentage of students in primary and secondary schools which are using new textbooks and handbooks
- „ The presence of sustainable development themes in textbooks and other teacher aids.

Presumptions and risks

- „ Lack of financial resources, absence of teacher training, organizational problems and problems of technical nature in schools, short deadlines for realization...

Terms and determinants – Textbooks, handbooks and other teacher aids

PHASES/DETERMINANTS	2007	2008	2009
Designing textbooks and handbooks			
Designing didactical software			
Designing brochures and posters			
Designing magazine National Geographic			

Budget – Textbooks, handbooks and other teacher aids

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
Designing textbooks and handbooks	50000	260000	50000	360000
Designing didactical software	30000	50000	30000	110000
Designing brochures and posters	15000	5000	5000	25000
Designing magazine National Geographic	50000	50000	50000	150000
TOTAL	145000	365000	135000	645000

Supplement 4.1.1

4. 1. 1 Preschool education / educational curriculum

Programme of preschool education provides exceptional possibilities for building principle of civic society and ecological consciousness through game.

Main goals until 2009

- „ To provide conditions for creation of ecological awareness among older upbringing groups.
- „ To promote “exploratory spirit“ in education.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ The number of upbringing and educational institutions in which programmes are being realized.
- „ Improved educational and upbringing process based on the principle of “exploratory spirit” in education.

Presumptions and risks

- „ Insufficient number of teachers that can teach such contents in schools.
- „ Teachers and school principals did not go through training necessary to work under new educational curriculum.

Terms and determinants – Educational curriculum

PHASES/DETERMINANTS	2007	2008	2009
1. Designing educational curriculum for older upbringing groups of children			▲

Budget – Educational curriculum

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Designing educational curriculum for older upbringing groups of children	10000	20000	10000	40000
TOTAL	10000	20000	10000	40000

Supplement 4. 2. 1

4. 2. 1 Primary education / educational curriculum

New educational curricula are aimed at:

- Developing creative personalities;
- Achieving of internationally comparable standards of knowledge as well as gaining knowledge, skills and competences needed for successful continuation of schooling;
- Developing critical thinking, independence and interest in acquiring new knowledge;
- Capacitating young people for independent judgment and engagement in social life;
- Acquiring general knowledge which allow independent, efficient and creative application in practice;
- Enabling students to develop their personalities in accordance with their development abilities and patterns;
- Educating students to respect national values, history and culture and other characteristics of other peoples;
- Educating for mutual tolerance, respect for diversity and cooperation with others, to respect human rights and basic freedoms and thus developing abilities for life in a democratic society;
- Possessing knowledge of the basic development laws of nature and society and health preserving; and
- Making and encouraging a healthy way of living and a responsible attitude towards the natural environment.

In order to make it possible for students, during their nine-year primary schooling, to continuously get to know geographic and cultural diversity of Montenegro, it is necessary to create a project plan which will allow them to visit different regions of Montenegro. School at outdoors lasts 7 days and the escort of teachers and animators in school resorts is compulsory, while the programmes are adjusted to the age of students.

Quality organized school at outdoors implies precisely designed programme, which by its contents should satisfy educational needs of children at a certain age and out of the school setting.

In order to bring to life this school at the outdoors properly, it is necessary to design special programmes that will follow teaching contents and respect developmental characteristics of children, as well as cultural - historic and natural characteristics of each region they visit.

Ecological Education Centre and Biological Station – Skadar Lake is institution that should within one part of its activities act as educator of students, as well as of wider population in the area of ecology, preserving natural environment and biology. It should also issue certificates for national and international developmental and educative programmes and projects, which satisfy criteria of biology, ecology and preservation of natural environment.

Connecting contents of similar subjects and correlations between them brings to quality learning, thus to observing one appearance, problem or a fact in a whole and interdisciplinary way which altogether means adopting more permanent knowledge.

Main goals until 2009

- „ To ensure implementation of new educational Curriculum in all primary schools in Montenegro.
- „ To provide conditions for the implementation of as many elective subjects as possible.
- „ To design programmes that will clearly place the school at outdoors within the new concept of educational system, set transparent criteria for its realization as well as distinguish teachers who will realize them.

- „ Schools at outdoors allow students to get to know cultural and historical heritage as well as natural beauties of their country in a continuous, quality and interesting way.
- „ Activities realized by Ecological Education Centre and Biological Station – Skadar Lake contribute to improvement of students` knowledge and achievements, international cooperation in the field of education, as well as scientific and research projects in this field.
- „ To develop problem and multidisciplinary approach in teaching process.
- „ To familiarize students through nine-year primary education with history and culture of their own country, as well as with significant Montenegrin historical points respecting the principle of obvious teaching.
- „ To develop and raise ecological awareness among young population.
- „ To promote research in education.
- „ To introduce national testing at the end of 1st and 2nd cycle as well as external exam at the end of 3rd cycle.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ Percentage of students in primary school gaining knowledge under new Curriculum.
- „ Number of elective subjects that are realized in schools.
- „ Number of students that attend schools at outdoors.
- „ Number of international programmes and the number of students visiting Ecological Education Centre and Biological Station – Skadar Lake.
- „ Number of subject curricula with completed correlations.
- „ Improved educational process based on research in education.
- „ Number of students tested at the end of 1st and 2nd cycle and students externally tested at the end of 3rd cycle.

Presumptions and risks

- „ Insufficient cooperation between local community and school when designing 20% of free contents.
- „ Insufficient number of teachers in schools that could teach these contents.
- „ All teachers and school principals are not trained enough to implement new educational Curriculum.
- „ Ecological Education Centre and Biological Station – Skadar Lake not put in function.
- „ Lack of cooperation between Ministry of Tourism and Protection of Natural Environment and Ministry of Finance.

Terms and determinants – Primary education

PHASES/DETERMINANTS	2007	2008	2009
1. Designing elective subject curricula			
2. Introducing sustainable development contents in existing subject curricula			
3. Filling 20% of non- planned teaching contents within subject curricula with contents of sustainable development			
4. Designing programmes for school at outdoors			
5. Realization of teaching „school at outdoors“			
6. Capacity building of Ecological Education Centre and Biological Station			
7. Equipping Ecological Education Centre and Biological Station			
8. Broadening correlations in subjects where they exist already as well as in those where such contents exist only partially			
9. Designing catalogues of exams for compulsory subjects which are externally tested at the end of 3 rd cycle with included contents of sustainable development			▲

Budget – Primary education

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Designing elective subject curricula	27500	27500	27500	82500
2. Introducing sustainable development contents in existing subject curricula		10000	10000	20000
3. Filling 20% of non- planned teaching contents within subject curricula with contents of sustainable development		10000	10000	20000
4. Designing programmes for school at outdoors		15000		15000
5. Realization of teaching „school at outdoors“	124873	200000	300000	624873
6. Capacity building of Ecological Education Centre and Biological Station	10000	20000	15000	45000
7. Equipping Ecological Education Centre and Biological Station	70000	40000	20000	130000
8. Broadening correlations in subjects where they exist already as well as in those where such contents exist only partially	20000	30000	10000	60000
9. Designing catalogues of exams for compulsory subjects which are externally tested at the end of 3 rd cycle with included contents of sustainable development	20000	30000	30000	80000
TOTAL	272373	382500	422500	1077373

Supplement 4. 3. 1

4. 3. 1 High school / secondary schools / educational curriculum

Aims of designing new high school curricula:

- Acquiring of general and special knowledge, skills abilities and habits based on the achievements of science, technique, culture and art for the purpose of continuing schooling,
- Achieving an internationally competitive level of knowledge,
- Developing critical points of view and reasoning,
- Developing communication skills,
- Being responsible towards oneself, other people, and towards the natural and social environment,
- Being prepared to live in a pluralistic and democratic society and
- Inspiring understanding, tolerance and solidarity among all people.

Main goals until 2009

- „ To implement new educational Curriculum in all high schools in Montenegro.
- „ To provide conditions for the implementation of as many elective subjects as possible.
- „ To ensure correlation between subject curricula in educational Curriculum.
- „ To promote research in education.
- „ Working programme of EECandBS contributes to improvement of students` knowledge and skills and international exchange of students.
- „ To ensure capacity building of Examination Centre.
- „ To define procedures for organizing Matura exam.
- „ To design catalogues for exams with included contents of sustainable development.
- „ To ensure subject curricula commissions training for designing items/assignments.
- „ To develop database of items/assignments.
- „ To equip EC with sophisticated machines and provide training for their usage.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ Percentage of students in high schools/secondary schools who are gaining knowledge under new Curriculum.
- „ Number of elective subjects realized in schools.
- „ Achieved integration among subject curricula.
- „ Improved educational process based on research in education.
- „ Number of students who are learning contents from ecology, environmental protection and biology under the programmes developed by EEC&BS.

- „ Trained employees in Examination Centre: coordinator of Matura exam organization, advisors for group of subjects, ICT department in order to organize Matura exam.
- „ Defined concept of Matura exam and its administration.
- „ Designed catalogues for exams with included contents of sustainable development for compulsory Matura subjects (Mother tongue, Mathematics, Foreign language).
- „ Subject curricula commissions are trained for designing items/assignments.
- „ Database of items/tasks is developed.
- „ EC is equipped with sophisticated machines and employees trained to use them.

Assumptions and risks

- „ Insufficient cooperation between local community and school when designing 20% of free contents.
- „ Insufficient number of teachers in schools that could teach these contents.
- „ Teachers and school principals did not go through training necessary in order to implement new Curriculum.
- „ Insufficient training of all the participants in organization of Matura exam.
- „ Lack of cooperation with schools when realizing Matura exam.
- „ Ecological Education Centre and Biological Station – Skadar Lake not put in function.

Terms and determinants – High schools/secondary schools

PHASES/DETERMINANTS	2007	2008	2009
1. Designing elective subject curricula			
2. Introducing sustainable development contents into existing subject curricula			
3. Filling 20% of non- planned teaching contents within subject curricula with contents of sustainable development			
4. Broadening correlations in subjects where they exist already as well as in those where such contents exist only partially			
5. Designing educational programmes for gifted students			
6. Organizing educational camps for gifted students and international exchange of secondary school students			
7. Capacity building of Examination Centre			
8. Defining procedures for organizing Matura exam			▲
9. Designing catalogues for exams with included contents of sustainable development			▲
10. Subject curricula commissions training for designing items/assignments			▲
11. Formation of items/assignments database			▲
12. Equipping EC with sophisticated machines and training to work with them			▲

Budget – High schools/secondary schools

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Designing elective subject curricula	20000	20000	20000	60000
2. Introducing sustainable development contents into existing subject curricula		10000	10000	20000
3. Filling 20% of non- planned teaching contents within subject curricula with contents of sustainable development		10000	10000	20000
4. Broadening correlations in subjects where they exist already as well as in those where such contents exist only partially	20000	30000	10000	60000
5. Designing educational programmes for gifted students	15000			15000
6. Organizing educational camps for gifted students and international exchange of secondary school students	20000	20000	20000	60000
7. Capacity building of Examination Centre	15000	14000		29000
8. Defining procedures for organizing Matura exam	10000	5000	4000	19000
9. Designing catalogues for exams with included contents of sustainable development	30000	30000	30000	90000
10. Subject curricula commissions training for designing items/assignments	20000	10000	10000	40000
11. Formation of items/assignments database	20000	20000	20000	60000
12. Equipping EC with sophisticated machines and training to work with them	50000	50000	10000	110000
TOTAL	220000	219000	144000	583000

Supplement 4. 4. 1

4. 4. 1 Vocational education/ Educational Curricula and standards of occupation

Main goals until 2009

- „ To introduce new curricula in all occupational profiles.
- „ To implement new curricula in all secondary vocational schools in Montenegro.
- „ To provide material conditions for implementation of new curricula.
- „ To ensure subjects correlations in curricula.
- „ To define procedures for organizing final – school leaving exam at the end of secondary schooling.
- „ **To design Law on national professional qualifications.**
- „ To design catalogue for certification of qualifications.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ Percentage of students in secondary vocational schools gaining knowledge under new Curriculum.
- „ Number of new curricula being realized in secondary vocational schools.
- „ Achieved integration among subject curricula within educational curriculum.
- „ Defined concept of professional exam.
- „ Designed catalogues of exams for certification.

Assumptions and risks

- „ Insufficient cooperation of social partners when realizing practical teaching.
- „ There is no sufficient interest among students to enrol in secondary vocational schools.
- „ Insufficient training of subjects commissions for creating assignments for the professional exam.
- „ Teachers and school principals finished training necessary to implement new Curriculum.

Terms and determinants – Secondary vocational education

PHASES/DETERMINANTS	2007	2008	2009
1. Modernization of adopted occupational standards by means of introducing contents of sustainable development			▲
2. Introducing sustainable development contents into existing educational curricula			▲

Budget – Secondary vocational education

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
1. Modernization of adopted occupational standards by means of introducing contents of sustainable development	3750	3750	3750	11250
2. Introducing sustainable development contents into existing educational curricula	5000	5000	5000	15000
TOTAL	8750	8750	8750	26250

Supplement 4.5.1

4. 5. 1 Adult education/ training programmes

Besides including sustainable development contents into formal educational system, it is necessary to involve and offer these contents through informal system of education.

Main goals until 2009

- „ To introduce and implement new training programmes in adult education.
- „ To design modules of sustainable development in order to raise awareness among adults about the necessity of developing society in line with adopted principles of sustainable development.
- „ To train trainers for educating adults in environmental protection.
- „ To involve greater number of attendants in programmes of ecological education.

Strategies

- „ Implementation of Strategic plan of educational reform for the period of 2005 – 2009.
- „ Implementation of National strategy for sustainable development of Montenegro.

Key performance indicators

- „ Number of adult training programmes containing module for sustainable development.
- „ Percentage of adult attendants involved in training programmes.
- „ Number of trainers trained for delivery of educative training programmes containing module for sustainable development.

Presumptions and risks

- „ Insufficient cooperation of social partners when realizing adult training programmes.
- „ There is no sufficient interest among adults to involve themselves in adult training programmes.
- „ Teachers and instructors of adult education programme undergone training necessary in order to implement new programmes.

Terms and determinants – Adult education

PHASES/DETERMINANTS	2007	2008	2009
Designing sustainable development module			▲
Introducing sustainable development module into existing programmes of adult education			▲

Budget – Adult education

COMPONENT	EXPENDITURES IN EUROS			
	2007	2008	2009	TOTAL
Designing sustainable development module	1000			1000
Introducing sustainable development module into existing programmes of adult education		1500	1500	3000
TOTAL	1000	1500	1500	4000

5. Review of the total budget

LEVELS OF EDUCATION	EXPENDITURES IN EUROS			
	2007	2008	2009	UKUPNO
2.2 Cooperation with target groups and informing public	19500	20000	16000	55500
2.3 Monitoring and evaluation of educational reform	10000	16526	16526	43052
3.4. Further training and continuous professional development	68083	131000	131000	330083
3.5 Integrating ICT into educational process	160000	160000	110000	430000
3.6. Inclusion	466800	288800	272000	1027600
3.7.1 Education in Albanian as a mother tongue	145000	250000	145000	540000
3.7.2 Roma education	93000	98000	95000	286000
3.8. Textbooks, handbooks and other teacher aids	145000	365000	135000	645000
4.1. 1 Preschool education / educational curriculum	10000	20000	10000	40000
4.2. 1 Primary education / educational curriculum	272373	382500	422500	1077373
4.3 High School / secondary schools / educational curriculum	220000	219000	144000	583000
4.4.1 Vocational education/ Educational Curricula and standards of occupation	8750	8750	8750	26250
4.5.1 Adult education/ training programmes	1000	1500	1500	4000
TOTAL	1619506	1961076	1507276	5087858

Conclusion

Action plan is designed so that it connects all the subjects, which are involved in educational reform through implementing themes, and contents relevant for achievement of educational reform concept by realizing adopted Strategic plan of educational reform for the period of 2005 – 2009. The basic goal of previous is to create educational system that will enable individuals as well as society to gain knowledge necessary to direct the state towards sustainable development. Plan envisages necessary steps and activities, determined carriers, resources, deadlines as well as cooperation and connecting of institutions in its implementation and achieving of set goals. As the designed Action plan is leaning towards already passed international documents in the field of sustainable development and towards Strategy for sustainable development of Montenegro, which is in the phase of adoption, it envisages also the very important cooperation of relevant ministries in monitoring successfulness of its implementation.

Designed Action plan is complementary to Strategic plan of educational reform for the period of 2005 – 2009 and makes it up to a great extent through focusing and broader inclusion of themes relevant for establishing sustainable development and overall development of ecological awareness of individuals and society. Based on this Action plan, all involved institutions, and Ministry of Education and Science, shall develop and monitor realization of set departmental activities and conduct also monitoring of implementation efficacy.