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LEARNING FROM EACH OTHER: ACHIEVEMENTS, CHALLENGES AND THE WAY FORWARD

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**LEARNING FROM EACH OTHER: ACHIEVEMENTS, CHALLENGES AND
THE WAY FORWARD**

*Report on progress in implementation of the UNECE Strategy for
Education for Sustainable Development* [1]

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[1] The report was prepared by two experts, Mr. Arjen Wals and Ms. Natalia Eernstman. The Government of the Netherlands provided an in-kind contribution to support preparation of this document.

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Introduction

1.   Responding to the new challenge of Education for Sustainable Development (ESD), Environment and Education Ministers of the UNECE member States adopted the UNECE Strategy for ESD, an operational tool to implement ESD (Vilnius, 2005). Governments committed to incorporating SD themes into their formal educational systems, in all relevant subjects, and in non-formal and informal education. These themes include poverty alleviation, peace, ethics, democracy, justice, security, human rights, health, social equity, cultural diversity, the economy, environmental protection and natural resource management. The following six objectives set out a framework for implementation, aiming to:

    (a)   Ensure that policy, regulatory and operational frameworks support ESD;

    (b)   Promote Sustainable Development through formal, non-formal and informal learning;

    (c)   Develop the competence within the education sector to engage in ESD;

    (d)   Ensure that adequate tools and materials for ESD are accessible;

    (e)   Promote research on and development of ESD; and

    (f)   Strengthen cooperation on ESD at all levels within the UNECE region. Governments committed to achieving progress in implementing ESD as follows:

        (i)   phase I (until 2007) – take stock of existing activities, implement initial measures, and define priorities for further activities;

        (ii)   phase II (until 2010) – start integrating SD into learning programmes and curricula, review progress made in the implementation of the national[2] strategies and revise these strategies if necessary;

        (iii)   phase III (until 2015) – make considerable progress in implementing ESD[3].

2.   On the first day of the Belgrade Conference[4], a special Joint Session of Environment and Education Ministers will consider the progress made and challenges encountered during Phase I and identify ways to improve the effectiveness of ESD implementation. This first evaluation report therefore focuses on the lessons emerging from phase I. It provides both an overview of the current situation with regard to the progress in the implementation of the Strategy and suggestions for the way forward. To do so, it describes the extent to which the objectives of the Strategy were attained and highlights some trends regarding the implementation process at various levels (national, subregional and regional). On the basis of activities that have been carried out so far, recommendations will be proposed for the further implementation.

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[2] For countries with a federal government structure, all references to "national" apply to "state", as appropriate.
[3] See UNECE Strategy for ESD (UNECE, 2005; CEP/AC.13/2005/3/Rev.1) and Indicators for ESD. Reporting Format (UNECE, 2006; ECE/CEP/AC.13/2006/5/Add.1).
[4] Sixth Ministerial Conference "Environment for Europe"(Belgrade, 10-12 October 2007).

3.   Several sources of information were used for the development of this report. The main sources were the National Implementation Reports (NIR)[5] submitted to the UNECE secretariat by 36 UNECE member states[6]. The details provided in these reports vary greatly; many Governments only completed the "yes/no" part, while others submitted more detailed responses, providing examples, clarifications and supportive quantitative data.

4.   The information contained in NIRs was complemented with interventions of country delegates during the meetings of the UNECE Steering Committee on ESD, subregional workshops and other events, as well as the report on the assessment of implementation of ESD in Central Asia[7]. Furthermore, the "good practices in ESD"[8] were used to understand the precise nature and direction of activities related to ESD and to determine obstacles and conditions that should be taken into account in order to improve the implementation of the Strategy.

5.   The report attempts to provide a complete overview of the progress, by describing the ESD measures undertaken with both quantitative information and concrete examples of activities when available. Some countries are featured more often than others; this stems from the fact that these States gave more detailed descriptions of their activities, thereby providing a complete source of examples. This does not necessarily mean that countries that are not featured in this report have less to offer or have made less progress in terms of the implementation of ESD.

I.   MEETING THE OBJECTIVES OF THE STRATEGY

6.   This chapter is structured in accordance with the format of the National Implementation Reports[9]. This format was based on the six objectives of the Strategy and consists of indicators and sub-indicators to assess the extent to which the objectives were fulfilled[10].

A. Policy, regulatory and operational frameworks

7.   The figure below and the table in annex 1 give an overview of the degree to which the initial measures for the implementation of the Strategy have been fulfilled. Although the percentages look very encouraging, two important points should be taken into account. Firstly, the countries that did not submit data on the indicators were not included in the calculation[11], so consequently the percentages do not fully represent the actual situation. Secondly, the data do

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[5] The National Implementation Reports describe the progress in the implementation of the Strategy at a national level, on the basis of answers to a set of indicators developed by an international group of experts (see Indicators for ESD: Reporting Format (UNECE, 2006; ECE/CEP/AC.13/2006/5/Add.1)).
[6] The national implementation reports can be found on the following website: http://www.unece.org/env/esd/Implement.Gov.htm.
[7] The report is prepared by the Regional Environmental Centre for Central Asia.
[8] Collection of "Good practices in ESD", UNECE-UNESCO, 2007; website: http://www.unece.org/env/esd/GoodPractices/index.html.
[9] See Reporting Format (UNECE, 2006; ECE/CEP/AC.13/2006/5/Add.1).
[10] See UNECE Strategy for ESD (UNECE, 2005; CEP/AC.13/2005/3/Rev.1) and Indicators for ESD Reporting Format (UNECE, 2006; ECE/CEP/AC.13/2006/5/Add.1).
[11] For the calculation of the percentages different sources were used: data from NIRs was complemented with interventions by the governmental officials and with the answers to a questionnaire on the initial measures for the implementation of the UNECE Strategy for ESD (December 2005).

not provide any information about the extent to which newly created policies, cooperation and structures function in practice. This would require additional research.
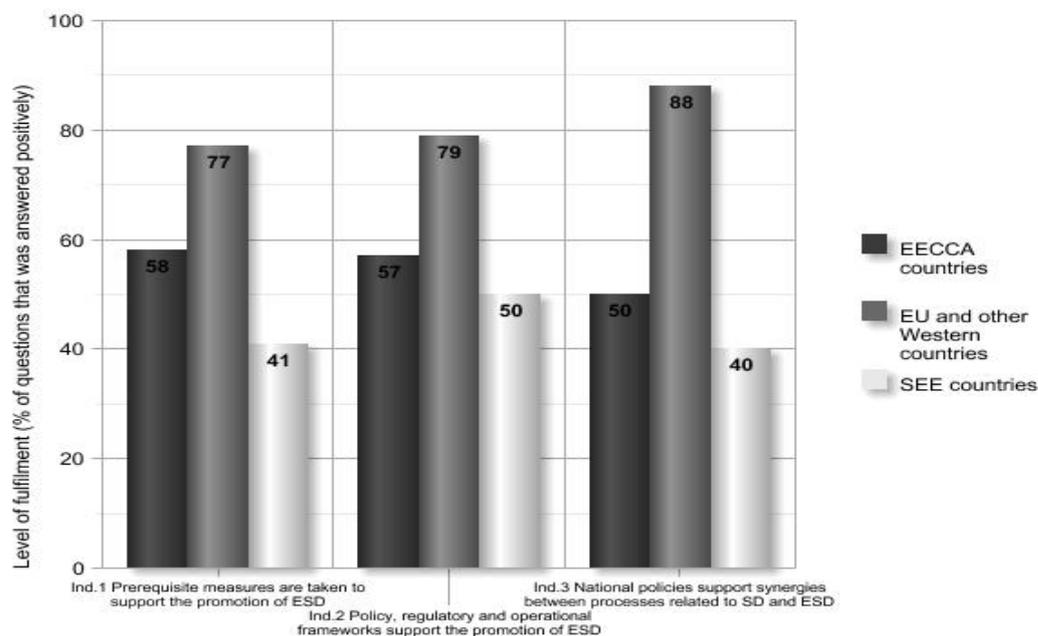
Figure 1: Fulfilment of the initial measures for the implementation of the UNECE Strategy for ESD.

8.   The figures show that the fulfilment of phase I is well on the way. In particular, the countries of Eastern Europe, Caucasus and Central Asia (EECCA) have made significant progress. The countries of South-Eastern Europe (SEE)[12] have a number of challenges ahead, in that many of them are still in the process of taking the prerequisite measures to support the promotion of ESD. In a majority of the countries, a formal relationship has been established between the Ministries responsible for environmental and educational issues. Cooperation between these two Ministries includes activities such as: the exchange of information used for drafting of materials on SD and ESD for educators and community leaders, promotion and dissemination of ESD concepts among public and officials, and development and implementation of training on ESD subjects.

9.   Many countries have established a formal working group for the implementation of the Strategy that includes several governmental bodies and stakeholders such as non-governmental organizations (NGOs), business, subnational authorities and educational institutions.

10.   Economic incentives to support ESD, however, appear to be lacking in many countries. Especially in EECCA and SEE countries most activities in the field of ESD are financially supported by international NGOs and donor organizations.

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[12] EECCA countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.
SEE countries: Albania, Bosnia and Herzegovina, Croatia, Montenegro, Serbia, and The former Yugoslav Republic of Macedonia.

11.   In one third of the responding countries, a national implementation plan is currently in place. Less than 50 per cent of the responding countries address ESD in relevant national legislation documents or include it in national curricula documents.

B.   Sustainable development in formal, non-formal and informal learning

1.   Key themes are addressed in formal education

12.   Due to the lack of data, little can be concluded regarding *the extent* to which key themes of SD are addressed in the curricula or programmes of study at various levels of formal education. With regard to *the type* of themes, it is the environmental component of ESD that is largely addressed. SD is conceptualized in different ways, but most conceptualizations are of an ecological and environmental nature, especially in EECCA countries. School activities in these countries tend to focus on classic themes, such as water pollution, waste management and energy conservation. In some countries such as Finland, Greece, Hungary, Kyrgyzstan and the Netherlands, a more integrative conceptualization of SD is emerging, which also allows for socio-economic perspectives to enter the contents of ESD.

13.   Several countries (some European Union and EECCA countries) state that they have a long tradition in environmental education (EE). This originates from the fact that they have, more than others, an embedded tradition to support and carry out extracurricular activities related to environmental protection.

14.   Environmental subjects seem to be addressed at all ISCED levels[13], whereas issues such as poverty alleviation, production and consumption patterns, human rights, citizenship, corporate social responsibility, economics and rural/ urban development tend to be covered in higher education.

2.   Strategies to implement ESD are clearly identified

15.   In general, none of the strategies to implement ESD in formal education (i.e. through existing subjects only, a cross-curriculum approach, the provision of specific subject programmes or a stand-alone project) is more developed than the others. There are slight differences between subregions, however: EECCA countries tend to focus more on the integration of ESD issues with existing subjects such as ecology, social studies, economics, and the various sciences; whereas some Western and Northern European countries follow more of a cross-curriculum approach[14].

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[13] International Standard Classification of Education (ISCED), designed by UNESCO, serves as an instrument suitable for assembling, compiling and presenting statistics of education both within individual countries and internationally.

[14] Examples of cross-curriculum approaches can be found in a European Union-supported project on Sustainability Education in European Primary Schools (SEEPS) (Shallcross, 2004; Shallcross et al., 2006).

16.   A "whole institution approach"[15] is a relatively new concept and requires the questioning of existing routines and structures. Hence it is no surprise that the development of this approach is still in its infancy. Many countries, especially in the EECCA and SEE subregions, are currently evaluating this specific approach and the manner in which it can be adopted in their national institutions. At the present time, none of the EECCA countries, two of the SEE countries, and only 30 per cent of Western European countries have developed this approach, and only 20 per cent of the countries provide incentives to support it. Some countries (e.g. the Czech Republic and Hungary) indicate that there are some schools that have adopted a "whole-institution" approach, but that this includes only a minority of all educational institutions.

3.   ESD is addressed by quality assessment/enhancement systems

17.   Little is done in the field of education quality assessments/enhancement systems that include criteria on ESD. Current quality assessment and accreditation schemes still focus on traditional learning outcomes in terms of general skills or competencies that need to be developed in learners and on basic cognitive and disciplinary oriented learning outcomes. Incorporating ESD in education requires not only new competencies for both staff of the education sector and learners (i.e. systemic thinking, visioning, using multiple perspectives, problem-solving), but also new core areas for quality assessment and enhancement.

18.   Some examples of developments in this field can be given, however. The Czech Republic has developed a national eco-labelling award scheme for schools and an award scheme related to the eco-footprint of schools. Greece uses the Eco-management and Audit Scheme (see box 1).

Box 1: The Eco-management and Audit Scheme in Greece

The Eco-Management and Audit Scheme (EMAS), is an Environmental tool for the voluntary establishment of environmental management in the organization. It is applied in the sector of education, and more specifically in schools and universities, intending to improve their environmental performance. The University of Makedonia, in Thessaloniki, is the first university in Greece that has implemented EMAS, with the active participation of all students who receive environmental education. The University will be soon registered in the Greek EMAS Register and it is expected that other universities as well as schools will follow its example.

(Source: Collection of "Good practices in ESD", UNECE-UNESCO, 2007)

4.   ESD methods and instruments for non-formal and informal learning

19.   The development of methods and instruments for non-formal and informal learning to assess changes in knowledge, attitude and practice is quite advanced: a majority of the countries address SD issues in informal and public awareness-raising activities and support for in-service

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[15] A "whole institution approach" means that all aspects of an institution's internal operations and external relationships are reviewed and revised in light of SD/ESD principles. Within such an approach, each institution would decide on its own actions, addressing the three overlapping spheres of Campus (management operations), Curriculum, and Community (external relationships).

learning. The latter includes activities such as environmental training for local authorities, enterprisers and decision-makers (Estonia), and a national "CSR[16] network", which informs and helps companies with the implementation of a CSR strategy (the Netherlands). Instruments that assess the outcomes of ESD as a result of non-formal and informal learning are, however, largely lacking.

5.   ESD implementation is a multi-stakeholder process

20.   Too little information was provided by the Governments to draw sound conclusions on this issue. In most Western European countries, ESD is a multi-stakeholder process, but the extent to which this applies cannot be specified. The stakeholders that were most involved are NGOs and local governments.

C.   Competence within the education sector

21.   Incorporating SD in education requires new competencies and competence building in ESD is necessary at all levels of formal education. The major challenge is that there is no agreed definition of ESD-related competencies, therefore it was left to each country to adapt them to some core requirements – e.g. systemic and interdisciplinary thinking, visioning and use of multiple perspectives – considering use of local and indigenous knowledge, but at the same time also having understanding of emerging global issues such as human rights, climate change, health security, loss of biodiversity, and the introduction of genetically modified organisms[17].

22.   In most countries, ESD is not part of the educators' initial training; it is rather part of their in-service training. Some countries (e.g. Uzbekistan) emphasized that this training mainly or exclusively focuses on topics related to environment. Hardly any of the countries reported having integrated ESD in the training of leaders and administrators of educational institutions. Some examples were given indicating that seminars and training are organized by, among others, the Ministries of Education and Environment (e.g. in Cyprus, France, Latvia, Lithuania and Turkmenistan,). In short, the development of ESD competence as an integrative concept is a major challenge which has not yet been a part of the initial training and re-training of current educators, leaders and decision makers in education sector. Therefore, competence-building efforts are necessary at all levels of both formal and non-formal education in all countries across the region. Low salaries of teachers contribute to poor implementation of this task. This applies throughout the entire region, and is particularly the case in EECCA and SEE countries.

Box 2:   The Eco-school program in Hungary

The Eco-school program is a network of schools that have been approved to be sustainable after an application procedure. Consequently, they can join in meetings, exchange materials, establish contacts, participate in national and international in-service training programs. Hereby the network gives a professional framework for schools to develop their own sustainability projects.

(Source: Collection of "Good practices in ESD", UNECE-UNESCO, 2007)

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[16] Corporate social responsibility.
[17] Wals, 2006.

23.   In most Western European countries, networks of educators involved in ESD exist, which are in many cases also governmentally supported. Canada has a website that serves as a discussion forum and clearing house for environmental educators, providing course outlines, curricula and other materials. Hungary has organized the Eco-School program (see box 2). In both Latvia and Malta, educators cooperate through so-called "Associations of Environmental Educators". The Netherlands has several networks of educators ranging from kindergarten to higher education (see box 3).

Box 3: The Dutch national network for sustainable development
in higher education curricula

The Dutch national network for sustainable development (DHO) in higher education curricula was initiated in 1998. Currently, more than 1000 educators and management staff within higher learning institutes, key persons within NGOs, companies and governments actively take part in the network. Apart from its members in the Netherlands, DHO collaborates with international partners in North and South. DHO aims to develop learning opportunities, innovative learning environments and methodologies within higher education that enable individuals to develop competences on sustainable development. More specifically, DHO aims to stimulate such opportunities for all students in institutes of higher learning in the Netherlands.

(Source: http://www.dho.nl)

D.   Tools and materials

24.   Materials for ESD at all levels need to be developed, not only for educators and teacher trainers, but also for other ESD stakeholders (i.e. government officials, NGO representatives, administrators and business leaders). In most countries, a national strategy for the encouragement of the development of ESD tools and materials is still lacking. Only one third of EECCA and Western European countries report having such a mechanism in place. The number of countries that invest public money in this activity is considerably higher. In the EECCA subregion, however, none of the Governments provide such funds: the development of ESD tools and materials is entirely organized by foreign investors and organizations.

25.   With regard to the quality control mechanisms for teaching tools and materials, very few public authorities either support or approve quality criteria. It is mainly the EECCA and SEE countries that have introduced measures to check quality; most Western countries do not have this arrangement in place, with a few exceptions, such as Greece.

26.   The majority of countries have ESD teaching tools and materials available in their national language, but only in a few countries (i.e. the Netherlands, Norway and Spain) are they applicable to all levels of ISCED. The SEE subregion lags behind in this area: only Serbia reports having developed instruction materials for primary schools, specific tools for higher education, and teacher training manuals related to environmental education and ESD.

Box 4: The Environmental Education Network in Norway

The Environmental Education network functions as a meeting place for schools, research institutions and public management, and provides continual support to schools. The purpose is to give examples of methods, suggest how the education can be organized and give schools access to updated and quality-assured information. Another purpose is to assure the quality of the educational activities and to strengthen the capacities for this kind of education for all of the participants: pupils, teachers and other interested parties. The information provided by the network is quality assured by linking the network website to the webpage of the Ministry of Environment. The information gives the reader both an overview of and insight into the most important environment and development topics.

(Source: Collection of "Good practices in ESD", UNECE-UNESCO, 2007)

27.   In Western European countries and Canada, the accessibility of teaching tools and materials is fairly well organized, i.e. in the majority of the countries, the dissemination is organized through a national strategy. Of EECCA countries, only Ukraine reports having such strategy: ESD teaching materials are available through the Internet and a database exists of ESD tools and materials. In Estonia, the webpages of the Ministries of Environment and Education have cross-linked sites on which information is provided. Norway has launched an Environmental Education Network (See box 4).

E.   Research and development

28.   Despite the need for research on ESD-related issues, little is done in this respect. Although research that addresses content and methods for ESD is governmentally supported in 20 of the responding countries, there is almost no research carried out at a national level that evaluates the outcome of the implementation of the Strategy. The number of post-graduate programmes addressing ESD is low and only several countries indicate that they have government-supported scholarships for post-graduate research in ESD. For example, in Belgium a Centre of Expertise for SD has been set up to supply data, instruments, methods and evaluations that can be used for further policy development. In Canada, a SD Research Initiative has been established (see box 5). Nineteen countries report having support for innovation and capacity-building of ESD practice, but what kind of support this involves is not clear.

Box 5: SD Research Initiative in Canada

The SD Research Initiative (SRDI) is a research group at the University of British Columbia that encourages interdisciplinary collaboration among faculty, departments and other centres at the university, as well as with other institutes and programmes undertaking sustainability research in Canada and around the world.

(Source: Canada's response to the UNESCO Questionnaire, 2006)

F.   Cooperation on ESD

29.   The cooperation between countries appears to be intensive: the vast majority of the countries report that their national public authorities are part of and support international networks. Within the EECCA subregion, for example, there is a strong cooperation through the Central Asia Working Group on ESD (see box 7), and cross-regional cooperation takes place through the Baltic 21 network (see box 6), which includes several European Union (EU)

countries and the Russian Federation. Only few countries are actively promoting ESD in international forums outside the UNECE region. Greece is very active in this respect, as it is disseminating the Strategy to other non-UNECE countries in the Mediterranean region. Canada is actively promoting ESD in India (through assisting in the organization of the conference "Education for a Sustainable Future") and in Burkina Faso, bringing together the major francophone bodies working on EE to exchange information and collaborate on different educational initiatives.

Box 6: the Baltic 21 Network

Baltic 21 is a regional multi-stakeholder process for sustainable development initiated in 1996. Its mission is to pursue sustainable development in the Baltic Sea Region by regional multi-stakeholder cooperation. Accordingly, Baltic 21 provides a regional network to implement the globally agreed Agenda 21 and World Summit on Sustainable Development activities, while focusing on the regional context of sustainable development.

(Source: www.baltic21.org)

Box 7: Central Asian Working group on ESD

The Central Asian Working Group is jointly working and carrying out the EE and ESD projects in the subregion. Including Ministries of Education, Environment, science, and NGOs, it coordinates the mechanism and programs on EE and ESD. This is done through annual subregional conferences where a year's work is summarized and new tasks are determined. These meetings help the individual countries to stay well informed of international, regional and subregional policy on ESD and to learn about challenges, needs and solutions of countries of Central Asia. It also provides the opportunity to exchange experience, to present examples of best practice, and to efficiently coordinate efforts and actions, in order to design new analytical, educational and methodological materials jointly and develop a subregional position for the representation at the international level.

(*Source: Progress Review on ESD in Central Asia, CAREC, 2006*)

G. Conservation, use and promotion of knowledge of indigenous peoples in ESD

30.   Indigenous knowledge should be valued and conserved as an integral part of ESD, alongside other types of knowledge, such as scientific, local and experiential.

31.   Not much progress has been made in the fulfilment of this task, although many countries in the region contain rich sources of indigenous and other local knowledge. Only a few countries highlighted activities related to this issue. In Kyrgyzstan, traditional knowledge in the sphere of biodiversity conservation was collected and used. In Norway, the curriculum for the 10 years' compulsory education considers the specific needs of the Sami people. Croatia refers to activities such as the collection and preservation of folk and traditional costumes, music and dance, and the integration of knowledge on traditional fruits and herbs in school curricula. Canada has developed initiatives directed towards the Inuit population (see box 8).

Box 8: *Curriculum from an Inuit Perspective in Canada*

In 2004, the Canadian Government described the education system as needing to be built within the context of *Inuit Quajimajatunqagit* (which translates as "that which is long known by Inuit") and that the raising and teaching of children and the care of those in need are a collective community process. *Inuuqatigiit: the Curriculum from the Inuit Perspective* lays the foundation for education to this indigenous group. Sustainable development in its broadest definition is a core value of Inuit life and is thus becoming the foundation of education.

(Source: Intervention by Canada, UNECE Steering Committee on ESD, 2005)

H.   Self-assessment by countries

32.   Only 10 countries that submitted a NIR responded to the self-assessment questionnaire. Consequently, very little can be said in this regard.

33.   In general, the level of implementation of the ESD Strategy is "in progress"; for example, 14 indicators have been identified by Slovakia as "in progress" At the same time, vast differences exist between countries. Sweden and the Netherlands, for example, have "completed" three objectives and are in progress/developing with regard to the other indicators. The latter has not yet started the development of a quality-control mechanism for teaching tools and materials for ESD. This indicator was most rated by countries as "not started". Kyrgyzstan is in a very initial stage of the implementation process, as it ticked "not started" for most of the indicators.

II.   SOME SUBREGIONAL TRENDS

34.   To describe subregional trends in the implementation of the Strategy, the following three features were taken into account:

(a)   *Application domain*: The level at which the ESD implementation takes place (e.g. local, school, state level; pupils/students education/teacher education or non-formal education);

(b)   *Implementation strategy:* The approach which is followed: i.e. emancipatory vs. instrumental[18];

(c)   *Core themes*: the SD themes that are mainly addressed.

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[18] An emancipatory approach focuses on: (a) enabling citizens to determine for themselves, in interaction with each other and all relevant stakeholders, what for them seems the most sustainable way of living; and (b) equipping them with the competencies needed to participate in this process and to implement the ideas and solutions they have identified. An instrumental approach focuses on using education and communication strategies to change people's sustainability-related behaviours and lifestyles in a pre-determined direction (Wals, 2006).

A. Eastern Europe, the Caucasus and Central Asia

35.   In general, the EECCA subregion has made considerable progress in the implementation of the Strategy. Governments have shown themselves to be committed to the objectives, which has resulted in the establishment of the political, regulatory and operational frameworks necessary to further embed the Strategy.

36.   The ESD-related activities, however, currently take place mainly at a national level. The causes for this were identified as follows [19]:

(a)   There is little awareness of SD among the general public; consequently initiatives mostly emerge at national level.

(b)   Traditionally, the political structure of the EECCA countries has been centralized, therefore most significant actions are initiated at the national level.

(c)   There is a lack of cooperation between the authorities and key stakeholders, e.g. schools, NGOs, training institutes, the media and business.

37.   The ESD activities are thus of a rather instrumental and prescriptive nature. Subjects, approaches and methods are directed by high-level bodies, leaving little room for local institutions (e.g. schools, community centres, training institutes and teacher organizations) to create and follow a path leading to a more emancipatory, multi-stakeholder process.

38.   Possible reasons for the instrumental nature of ESD processes could be the following:

(a)   The implementation (e.g. subjects, methods, materials) is to a large extent copied from Western European countries and realized by foreign NGOs. This shows up in the fact that preference is given to translating existing foreign materials instead of developing *own* tools and books. Consequently, a true sense of ownership of the implementation process may be lacking.

(b)   The educational system in the EECCA subregion is still very much centralized and managed by national governments, which leaves little room for schools and teachers to develop ESD programmes more autonomously.

(c)   Teachers receive low salaries while having many responsibilities and working under pressure. In consequence, there is little opportunity to develop and organize new activities, to extend and innovate the curriculum, or to participate in training.

39.   In the field of EE, locally generated, more emancipatory activities do exist, as EECCA countries tend to have a long tradition of environment-related extracurricular activities. But as a consequence, the focus in the implementation is on environmental subjects within ESD, and the

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[19] Source: Subregional workshop on the implementation of the UNECE Strategy for ESD for Eastern Europe, Caucasus and Central Asia (Moscow, 2006).

difference between EE and ESD is often not clear (only in Belarus are EE and ESD declared to be conceptually different).

40.   A last aspect that complicates the implementation of the Strategy in the EECCA subregion is that ESD is based more strongly on the formation of values, rather than the acquisition of certain knowledge, whereas education in EECCA countries is very much focused on the latter.

B.   South-Eastern Europe

41.   There are many similarities between the SEE and EECCA subregions in the application *domain* (ESD actions mainly take part at the national level), implementation *strategy* (there is little multi-stakeholder participation), and the key *themes* (the focus is on environmental subjects and there is no conceptual separation between EE and ESD). These parallels are also caused by similar preconditions: a centralized political and educational system; a high dependency on ideas and resources from Western countries; and educators working under high pressure, while receiving low salaries.

42.   The main difference between the two subregions is that the educational system in most SEE countries is undergoing large scale transformations resulting from the need to comply with EU standards on education. This transformation process has several implications:

(a)   Through educational reform, the education system has become a combination of elements from the previous models and new educational ideas, which are influenced by emerging notions of democracy and autonomous development.

(b)   The general educational reforms taking place create a new dynamic in the system, which provides an opportunity for the introduction of ESD.

(c)   SEE countries are looking for a European identity which fits within the framework of their national heritage. This informs their emerging education systems thereby potentially opening up spaces for participatory and explorative ESD processes at school level.

43.   A second difference is the lack of a formal umbrella organization, such as the Central Asian Working Group on ESD, which provides a platform for cooperation thereby strengthening ESD activities within the subregion.

C.   North America: the example of Canada

44.   Unlike EECCA and SEE countries, the political and educational system in Canada is decentralized in nature. Partly due to this feature, there is:

(a)   strong cooperation between state bodies and local authorities

(b)   an intensive involvement of stakeholders in the implementation of the Strategy.

This facilitates the development of ESD at all levels of society.

45.   Due to a lack of data on the precise nature of the individual ESD related projects, little can be said about the general strategy employed. Since the Government provides grants to educators that collaboratively plan, develop and implement SD curriculum units, the national strategy seems to stress and stimulate the growth of emancipatory and explorative SD processes at school and in communities.

46.   Most projects described are related to environmental themes within ESD. Thus, Canada also emphasizes the environmental/ecological conceptualization of SD. This does not necessarily mean that no activities are carried out targeting social and economical issues. There are indications that many NGOs are working on ESD, covering themes such as ethics, equity and social justice.

D.   The European Union and other Western European Countries

47.   Vast differences exist between the countries within this subregion, making it hard to pinpoint general trends. Countries that entered the EU during the final two accession rounds (e.g. Bulgaria, Poland, Romania and Slovenia) tend to have more in common with the EECCA and SEE countries than with some Western European countries (e.g. the Netherlands, Norway and Sweden). The latter countries show a pattern of decentralized educational and political systems, allowing institutions at the local level (e.g. schools and community centres) to develop their own interpretations of ESD. This has resulted in a relatively high number of activities within all sectors of society. Some countries have national networks and platforms looking for synergies between these independent initiatives.

48.   There is a continuing debate on the meaning of ESD; it is proving difficult to distil the concept in a clear-cut definition, as its interpretation largely depends on the context and the user, and is dynamic in space and time. The only steady characteristic of an ESD process seems to be that it has no universal definition and/or operationalization. This feature influences the way the Strategy is implemented, especially in countries where many initiatives are already taking place. The broad understanding of the ESD concept allows authorities and other administrative bodies to employ it as a "container-term", classifying a broad range of activities as ESD which might not entirely address ESD. Although the number of initiatives currently taking place looks promising, this in itself says little about the extent to which institutions and organizations have really reoriented themselves to allow sustainability issues to pervade the vision, ethos, thinking and work of institutions.

III.   LESSONS LEARNED

49.   This section is based on the "good practices in ESD"[20] provided by Governments and stakeholders. The "good practices" were classified according to their main purposes and as a result, seven key tasks emerged. These tasks can be seen as the core elements of the

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[20] Not all submitted "good practices" have been included in the figure. This because several were submitted in Cyrillic, and were therefore unintelligible to the author; others were too broad to classify and some projects were mentioned by various countries, but have been listed once in the grid.

implementation process as it has been conducted in phase I. These tasks are listed in figure 2 (annex II), accompanied by the measures employed to realize the respective tasks.

50.   The text below briefly elaborates the key tasks and the corresponding measures. To a fuller understanding of the measures, the reader is referred to the "good practices", which provide concrete examples of the realization of these measures in practice[21].

A.   Upgrading existing activities

51.   In all countries, there is a need to make optimal use of results and experiences of existing national ESD programmes in order to further develop them. Some of the most important measures countries have employed to fulfil this task are:

   (a)   granting awards to institutions that are showing good practice;

   (b)   starting a benchmarking process among institutions;

   (c)   effectively communicating and disseminating experiences and outcomes to all sectors in society through inter-institutional cooperation, platforms and information centres.

B.   Developing a strategic framework

52.   Several good practices referred to the establishment of a methodological or strategic framework for ESD implementation. Main measures employed by Governments in this respect are:

   (a)   the establishment of inter-institutional cooperation (e.g. between ministries and governmental bodies and NGOs, or schools and educational organizations);

   (b)   (international) platforms/ networks, through which collaboration between different sectors of society is stimulated.

C.   Institutionalizing ESD

53.   Countries that have a longer tradition in ESD identified the coordination and connection of independent initiatives as a weak point. There is a need to bundle existing activities in order to reinforce their impact. To do so, similar measures are being employed as mentioned under heading A above.

D.   Integrating ESD in the curriculum

54.   Most of the submitted "good practices" focused on the integration of ESD in curricula. All measures mentioned in the figure 2 in fact contribute to this factor, but several should be highlighted:

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[21] The compilation of "Good practices" can be found on: http://www.unece.org/env/esd/GoodPractices/index.html.

(a)   ICT-based methods are seen a promising in the deliverance of ESD;

(b)   several projects focus on the development of innovative teaching methods;

(c)   in many "good practices", the active participation of pupils and teachers in the development of ESD materials and education is seen as crucial as is the use of an interdisciplinary approach towards SD.

Box 9:   Green Pack developed by the Regional Environmental Centre for Central and Eastern Europe

The Green Pack is a multi-media environmental education curriculum kit mainly intended for European primary school teachers and their students. It focuses on particular aspects of environmental protection and SD, and includes a variety of educational materials such as a teacher's handbook with lesson plans and fact sheets for students, a film collection with animated clips and educational films, and an interactive CD-ROM with extensive information on various environmental topics. The country-specific Green Packs are developed by governmental and professional partners following the results of a national feasibility study. The packs are distributed to teachers after a training session.

(Source: Collection of "Good practices in ESD", UNECE-UNESCO, 2007)

E.   Developing ESD competence

55.   A large number of countries, especially in the EECCA and SEE subregions, indicated that the implementation process is hindered by a lack of ESD competencies among staff. Many projects are therefore directed towards this objective through the:

(a)   the deliverance of training to educators;

(b)   the production of materials (toolkits) and development of innovative teaching methods;

(c)   the exchange of experiences at an international level;

(d)   the development of knowledge through action research;

(e)   the establishment of platforms to make teaching guidelines easy accessible (e.g. through virtual channels and networks).

F.   Raising public awareness

56.   There is need to create a support base among the general public with regard to ESD in general and the principles and objectives of the Strategy in particular. These goals and objectives have not yet sufficiently been transferred from the national to the local level. In good practices directed towards raising public awareness, often a "community based approach" is employed, in which the local community (e.g. teachers, pupils and parents) is actively involved in creation and realization of an ESD project. In other projects "new" media (e.g. movies, musical festivals) are used to attract people's attention.

G.   Disseminating ESD related information

57.   A final task that emerged from the "good practices" is the improvement of the accessibility of ESD related information. This does not only refer to the distribution of information on ESD and the principles and objectives of the Strategy through measures as mentioned in section F above, but also to the creation of centres and channels through which practitioners in the field of ESD, such as educators and government officials, can easily get hold of ESD materials and advice. This mainly occurs through international platforms, use of "new" media and the establishment of educational centres.

IV.   CONCLUSIONS AND RECOMMENDATIONS

58.   This chapter summarizes the most important conclusions regarding current progress in the implementation process of the UNECE Strategy for ESD, featuring key shortcomings, challenges and corresponding recommendations for the next phase of the implementation process.

A.   Conclusions and recommendations relevant to the entire UNECE region

1.   From policy to practice

59.   The fulfilment of Phase I is well on its way; most countries are showing commitment to establishing the necessary policies, cooperation and structures to implement the Strategy. There is however a lack of concrete actions following the establishment of measures at the political level. The implementation process should move from a mere Strategy to country and region specific action plans for ESD.

2.   Interdepartmental cooperation and multi-stakeholder participation are followed

60.   The core of the Strategy, namely the fact that partnership mechanisms should be established between different ministries and agencies and that multi-stakeholder participation should be stimulated, seems to be supported by most countries. One should bear in mind, however, that established partnerships should not remain protocols on paper, but that actual communication need to take place between the partners (e.g. Ministries of Education and Environment).

3.   More commitment through economic incentives

61.   Economic incentives to support ESD appear to be lacking in many countries, in particular in EECCA and SEE countries. This to some extent implies that Governments are still lacking the commitment to fully engage in the implementation of the Strategy.

4.   From a mere environmental to a more integrative conceptualization of ESD

62.   In many countries it is mainly the environmental component of ESD that is addressed. More emphasis should be put on the other SD issues (i.e. social and economic), while taking into

account that some themes are more appropriate or urgent to certain countries at this point in time, and are on country-specific conditions and needs. Determining these priorities is an important part of a country's development of an appropriate national ESD strategy. Therefore countries should be given sufficient room to select and adopt suitable issues and methods.

5.   Address the underexposed issues

63.   Several issues have not sufficiently been addressed up to now and therefore require attention:

(a)   In most countries, ESD is not part of the educators' initial training. In fact, many countries indicate that this lack is a principal hindrance to the implementation of the Strategy. Teacher trainers should be considered as key stakeholders in the ESD implementation process. Thus, more support for (sub)regional ESD workshops for teacher trainers focusing on potential meanings of ESD, ESD learning and instruction processes and methods, and ESD curriculum integration strategies, is needed.

(b)   Quality control mechanisms for ESD teaching tools and materials are lacking. The use of a dynamic set of ESD quality indicators, and the introduction of continuous monitoring and evaluation schemes, could increase the quality of ESD.

(c)   Research in the field of ESD is lacking, and the outcomes of current and past research are scattered and remain underutilized. There is a need for intermediate platforms that can promote ESD research, on the one hand by articulating questions from policy and practice with regards to ESD implementation, and on the other, by synthesizing and sharing ESD research in a way that is accessible and useful for policymakers and practitioners.

(d)   The conservation, use and promotion of indigenous knowledge remains a weak point in the ESD implementation process in a majority of the countries. In part, this may be the result of a lack of awareness of the existence of this knowledge and of its potential contribution in moving towards a more sustainable world. Raising such awareness at all levels should be an essential component of a national ESD strategy.

6.   Focusing on the content and teaching methods

64.   Currently, most countries tend to focus on integrating the content of ESD in curricula and training. ESD, however, involves entirely new approaches to teaching and learning, inter alia:

(a)   a shift from top-down curriculum planning to the active participation of pupils in negotiating the content and nature of their own learning within the environment in which the learning occurs[22];

(b)   a shift from the transmission of mere knowledge to the formation of values among pupils.

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[22] Source: Shallcross, Robinson, Pace and Wals, 2006.

B.   Conclusions and recommendations specific to the EECCA subregion

65.   Although much can be learned from the experiences in countries that have a longer history with ESD, EECCA countries should also focus on the development of their *own* ESD measures, thereby becoming less dependent of foreign incentives and creating a sense of ownership of the Strategy at national and local levels. This also may pave the way for a better use of local and indigenous knowledge.

66.   There should be more room for schools and teachers to develop ESD programmes directly based upon the needs arising from their immediate environment and community, thereby making the implementation process more participatory, locally relevant and, ultimately, more meaningful.

C.   Conclusions and recommendations specific to the SEE subregion

67.   The current dynamics in the educational system provide an opportunity for innovation that should be seized upon to integrate ESD into curricula and into existing and/or emerging quality assurance mechanisms.

68.   An SEE forum to coordinate and strengthen ESD activities has yet to be formally established. Even though common activities and exchanges in the context of ESD are taking place, more synergies could be created by establishing a more formal forum, such as the Central Asian Working Group on ESD.

D.   Conclusions and recommendations specific to the Western European Countries and Canada

69.   The significant differences that exist between the countries should be exploited, as they would provide the opportunity to effectively share the broad range of experiences that exists within this group. To do this fruitfully, exchange mechanisms should be reinforced and developed.

70.   Many independent initiatives are taking place, many of which exemplify good practices in ESD. To strengthen the implementation process as a whole, these initiatives and resulting lessons need to be made available and employed for the further development of ESD.

71.   A risk exists that the ESD may lose ground in the continuing debate on the its meaning among scholars and policymakers, as the focus tends to be on the *interpretation* rather than the *implementation* of the concept. Due to the "vagueness" of the ESD concept, it can easily be misused by authorities, organizations and the private sector, as a tool to "green" their images. Both the implementation and specific meaning of ESD is enhanced by actual execution of concrete activities. A system of continuous monitoring and evaluation will help improve the quality of ESD policies, actions and tools, thereby also preventing institutions and companies from misusing the concept to "green-wash" their activities.

Annex I

Fulfilment of the initial measures for the implementation of the Strategy

Indicator	Sub-indicator	Number of the responded countries	Fulfilled
Prerequisite measures are taken to support the promotion of ESD	Strategy has been translated in the national language of the country	44	79.5%
	A national focal point has been appointed	34	73.5%
	A coordinating body is established	38	72.6%
	A national implementation plan has been developed	40	35.0%
	There are synergies between the UNECE process and other processes relevant to ESD	37	69.9%
Policy, regulatory and operational frameworks support the promotion of ESD	The ESD is addressed in national policy documents	36	86.1%
	Public budgets to support ESD are available	36	56%
	There is a formal structure for interdepartmental cooperation	39	79.5%
	A mechanism for multi-stakeholder cooperation on ESD exists	37	70.3%
National policies support synergies between processes related to SD and ESD		29	75%

Annex II

Key tasks and corresponding measures as fulfilled in phase I
(Source: *Collection of "Good practices in ESD", UNECE-UNESCO, 2007*)

1. Using the figure below, one easily derive the prerequisite conditions, factors and measures for successful ESD implementation and at the same time find practical examples of projects that were directed towards the specific task. This exercise – the exchange of *existing* experiences, knowledge and solutions – stimulates the "learning from each other". The numbers correspond to the "good practices" in which the measure was used to reach the corresponding task.

	Upgrading existing activities	Developing a strategic framework	Institutionalizing ESD	Integrating ESD in curriculum	Developing ESD competence	Raising public awareness	Disseminating ESD related information
Developing ESD materials and toolkits		36	36	4, 17, 26, 35, 39, 40, 41	4, 52, 41		
Delivering trainings to educators				4, 7, 17, 21, 26, 27, 29, 33, 35, 40, 41	20, 21, 26, 38, 35, 50, 18, 27, 33, 29, 40, 41	30	
Granting awards	1		1	1 , 18, 33			
Benchmarking	1	36	1, 36	1			
Inter-institutional cooperation	2, 31, 3, 14	16, 19, 24, 28, 31, 36, 37	36	12, 21, 24, 32	21	3, 14, 19, 21, 32, 34	
Using foreign experiences and expertise	38	11, 37		4, 10	4, 11, 38	11	
Employing a community based approach				5, 7, 13, 15, 17, 22, 39		5, 13, 22, 30	
Employing a multidisciplinary or 'holistic' apporach		28		12, 27		8, 27	
Developing and using ICT methods		6		9, 22, 35, 40	26, 40	11, 22	26
Establishing (international) platforms and networks	2, 3, 5, 14, 25, 31, 38	11, 31, 36, 37	39, 36	9, 25, 39, 17	11, 17, 30, 20, 25, 38	3, 11, 14	38
Using (action) research	38	16		15, 21	21, 20, 38		38
Using different forms of media				22		8, 22	
Setting up or supporting ESD information centers	38	24		23, 25, 24	25, 38	22, 23, 30	23, 26, 38
Developing and using innovative teaching methods		28		1, 5, 10, 12, 18, 22, 27, 32, 40, 41	26, 40, 41	27	
Active participation/ high involvement of pupils and teachers in the development of ESD materials and education				13, 15, 18, 33, 32, 35, 39		13, 32	

Project title – Responsible organization(s) – Country

1. **Sustainable Universities** – FORUM Umweltbildung (Austria).
2. **National Network for EE** – The Association for EE "Pavucina" (Czech Republic).
3. **EE Network in South Moravia Region** – Lipka EE Centre (Czech Republic).
4. **Sustainable Offices** - The Czech Eco-Counselling Network STEP (Czech Republic).
5. **Designing Action Community Programs through Creating Networks amongst Schools, Parents and Local Community** – Pedagogical Institute of Cyprus, Cyprus Ministry of Education and Culture (Cyprus).
6. **Launch of Website to mark DESD 2005-2014** – Danish Ministry of Education (Denmark).
7. **Tuulik, Aiatuulik** – Foundation for Permanent Education and NPO Centre for Training and Development (Estonia).
8. **International Matsalu Nature Film Festival** – MTU Matsalu Loodusfilmide Festival (Estonia).
9. **ENO-Environment Online, A global virtual school and portal for SD** – The department of education (Finland).
10. **Introduction of the course "Global Environmental Politics" and "Regional Environmental Politics"** - Georgian Technical University (Georgia).
11. **Mediterranean Education Initiative for Environment and Sustainability: MEdIES** – Ministry for Environment, Physical Planning and Public works & Ministry of National Education and Religious affairs (Greece).
12. **Eco-schools as Experimental Centres of Future Generations to a Better World** – Institute for Public Education (Hungary).
13. **The Role of Local School in Promoting Local Sustainability in Hungarian Rural Communities** – Hungarian Society for Environmental Education (Hungary).
14. **Italian National Programme of Environmental Education, Information and Training: INPEEIT** – Ministry for the Environment, land and Sea of Italy (Italy).
15. **Helianthus, EE Project** – Ministry of Public Education (Italy).
16. **Quality Indicators for Regional Systems of EE towards SDt: QuIRS** – General Directorate of Training Policy, Cultural heritage and activities (Italy).
17. **School Green Land** – Ecological Movement "BIOM" (Kyrgyzstan).
18. **Eco-schools** - Foundation for Environmental Education (Latvia).
19. **Good Cooperation for Good Practice, Methodological Materials on ESD** – Association of Environmental Educators (Latvia).
20. **Supervisors Training Program, Societies for SD and its Interdisciplinary Expertise of Education Development** – Ministry of Education and Science (Lithuania).
21. **Masters' Program Development "Multidisciplinary Study Program on SD in Society"** – Kaunas University of Technology (Lithuania).
22. **Plug in2 the Environment, an Eco-interactive Experience** (Malta)
23. **Establishment of Centre for Environmental Information** – Ministry of Ecology and Natural Resources (Moldova)
24. **Vision-development and Agenda-setting of SD in the Entire Formal Educational System** – SenterNovem (Netherlands).
25. **Norwegian EE Project, a Tool for SD – National Directorate for Education and Training** (Norway).
26. **Use of IT and Multimedia in ESD** – University Centre for Environmental Studies (Poland).
27. **The Whole Institution Approach to ESD: the Curriculum and Educational Materials** – Association for Environmental Studies ASEKO (Russian Federation).
28. **Elaboration of the EE Conception Promoting SD at Every Types of Schools within the Life-Long Learning** – Commission of Ministry of Education and Ministry for the Environment for Education in Sustainable Development (Slovak Republic).
29. **Flowers of the Future are Seed of Today, Project "Eco School"** – primary School "St. Sava" (Serbia).
30. **Program for Local Communities' Capacity-Building, Local Environmental Coordinators, Strengthening Communication, Civil Participation and Democracy for Sustainable Living of Local Communities in Serbia** – Ecological Society ENDEMIT (Serbia).
31. **Making Plans: Beginning by Understanding, The Spanish Seminar on Education and Communication for Wetlands** – Ministry of Environment (Spain).

32. **Implementation of Environmental Health as Part of Education towards SD in Primary Schools of the Sitno Region** – Univerzita Mateja bela (Slovakia).
33. **Sustainable School Award** – The Swedish National Agency for School Improvement (Sweden).
34. **Youth, for a Healthy Living Environment** – Ministry of Education and Science (The former Yugoslav Republic of Macedonia).
35. **Ecological Footprint Toolkit** – Field Studies Council (United Kingdom).
36. **Higher Education Partnership HESP** – Forum for the Future (United Kingdom).
37. **Strategy for SD: "SD, New Bearings for the Nordic Countries"** – Nordic Council of Ministers.
38. **International Decentralized Network "Environmental and School Initiatives** – Environment and School Initiatives.
39. **Schools for SD to Promote Local Community Environmental Actions** – Toyota.
40. **Learning for Sustainability – Pupil Online Discussion** – World Wide Fund for Nature.
41. **Green Pack** - Regional Environmatal Centre for Central and Eastern Europe.

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